

Sequence Listing

- <110> Ashkenazi, Avi J.
 Baker, Kevin P.
 Botstein, David
 Desnoyers, Luc
 Eaton, Dan L.
 Ferrara, Napoleone
 Fong, Sherman
 Gerber, Hanspeter
 Gerritsen, Mary E.
 Goddard, Audrey
 Godowski, Paul J.
 Grimaldi, J. Christopher
 Gurney, Austin L.
 Kljavin, Ivar J.
 Napier, Mary A.
 Pan, James
 Paoni, Nicholas F.
 Roy, Margaret Ann
 Stewart, Timothy A.
 Tumas, Daniel
 Watanabe, Colin K.
 Williams, P. Mickey
 Wood, William I.
 Zhang, Zemin
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 ctttacagca caacttggca ggacgtggat ttcatcacga tgcctttttc 750
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 aactctatatt ctttggcatt ctgtttaatg ggctgactct gggccttcag 1050
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 atgccaaagt cttccctttt taacattata aaagctaggt tgtctcttga 1900
 attttgaggc cctagagata gtcattttgc aagtaaagag caacgggacc 1950
 ctttctaaaa acgttgggtg aaggacctaa atacctggcc ataccataga 2000
 tttgggatga tgtagtctgt gctaaaattt ttgctgaaga agcagtttct 2050

Ala Met Ala Val Ile Phe Ser Asn Phe Ser Ile Ile Thr Thr Ala
125 130 135

Leu Leu Phe Arg Ile Val Leu Lys Arg Arg Leu Asn Trp Ile Gln
140 145 150

Trp Ala Ser Leu Leu Thr Leu Phe Leu Ser Ile Val Ala Leu Thr
155 160 165

Ala Gly Thr Lys Thr Leu Gln His Asn Leu Ala Gly Arg Gly Phe
170 175 180

His His Asp Ala Phe Phe Ser Pro Ser Asn Ser Cys Leu Leu Phe
185 190 195

Arg Ser Glu Cys Pro Arg Lys Asp Asn Cys Thr Ala Lys Glu Trp
200 205 210

Thr Phe Pro Glu Ala Lys Trp Asn Thr Thr Ala Arg Val Phe Ser
215 220 225

His Ile Arg Leu Gly Met Gly His Val Leu Ile Ile Val Gln Cys
230 235 240

Phe Ile Ser Ser Met Ala Asn Ile Tyr Asn Glu Lys Ile Leu Lys
245 250 255

Glu Gly Asn Gln Leu Thr Glu Ser Ile Phe Ile Gln Asn Ser Lys
260 265 270

Leu Tyr Phe Phe Gly Ile Leu Phe Asn Gly Leu Thr Leu Gly Leu
275 280 285

Gln Arg Ser Asn Arg Asp Gln Ile Lys Asn Cys Gly Phe Phe Tyr
290 295 300

Gly His Ser Ala Phe Ser Val Ala Leu Ile Phe Val Thr Ala Phe
305 310 315

Gln Gly Leu Ser Val Ala Phe Ile Leu Lys Phe Leu Asp Asn Met
320 325 330

Phe His Val Leu Met Ala Gln Val Thr Thr Val Ile Ile Thr Thr
335 340 345

Val Ser Val Leu Val Phe Asp Phe Arg Pro Ser Leu Glu Phe Phe
350 355 360

Leu Glu Ala Pro Ser Val Leu Leu Ser Ile Phe Ile Tyr Asn Ala
365 370 375

Ser Lys Pro Gln Val Pro Glu Tyr Ala Pro Arg Gln Glu Arg Ile
380 385 390

Arg Asp Leu Ser Gly Asn Leu Trp Glu Arg Ser Ser Gly Asp Gly
395 400 405

Glu Glu Leu Glu Arg Leu Thr Lys Pro Lys Ser Asp Glu Ser Asp
410 415 420

Glu Asp Thr Phe

<210> 15
<211> 755
<212> DNA
<213> Homo sapiens

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ctatacctac tgtagcttct ccaogtatgg accctaaagg ctactgtctg 150
tactacgggg ctagacagtt actgtctcag ctctaggatg tgcgttcttc 200
cactagaagc tcttctgagg gaggttaatta aaaaacagtg gaatggaaaa 250
acagtgtgt agtcactctg taatatgctc cttgtcaaca atgtatacat 300
tctgtctagg tgccatattc attgctttta gctcaagtgc catcttacta 350
gtgaagtatt ctgccaatga agaaaacaag tatgattatc ttccaactac 400
tgtaatgtg tgctcagaac tgggtgaagct agttttctgt gtgcttgtgt 450
cattctgtgt tataaagaaa gatcatcaaa gtagaaattt gaaatatgct 500
tcttgaag aattctctga ttcatgaag tgggtccattc ctgcctttct 550
ttatttctc gataacttga ttgtcttcta tgctctgtcc tatottcaac 600
cagccatggc tgttatcttc tcaaatttta gcattataac aacagctctt 650
ctattcagga tagtgcgtgaa gaggcgtcta aactggatcc agtgggcttc 700
cctcctgact ttatttttgt ctattgtggc cttgactgcc gggactaaaa 750
cttta 755

<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 16
ctatacctac tgtagcttct 20

<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 17
tcagagaatt ccttcagga 20

<210> 18
<211> 40
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 18

acagtgtgtgt agtcatcctg taatatgctc cttgtcaaca 40

<210> 19

<211> 2142

<212> DNA

<213> Homo sapiens

<400> 19

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cgcgcgccgg ccgtggctaa ggctgctacg aagcgagctt gggaggagca 100
gcggcctgcg gggcagagga gcatcccgtc taccaggtcc caagcggcgt 150
ggcccgccgg tcattggccaa aggagaagcg gccgagagcg gctccgcggc 200
ggggctgcta cccaccagca tctcccaaag cactgaacgc ccggcccagg 250
tgaagaaaga accgaaaaag aagaacaac agttgtctgt ttgcaacaag 300
ctttgctatg cacttggggg agccccctac caggtgacgg gctgtgccct 350
gggtttcttc cttcagatct acctattgga tgtggctcag gtgggccctt 400
tctctgcctc catcatcctg tttgtgggcc gagcctggga tgcacatcaca 450
gacccccctg tgggcctctg catcagcaaa tccccctgga cctgectggg 500
tcgccttatg cccctgatca tctctccac gcccttgccc gtcattgcct 550
acttctctat ctggttcctg cccgaacttc cacacggcca gacctattgg 600
tacctgcttt tctattgcct ctttgaaca atggtcacgt gttccatgt 650
tccctactcg gctctacca tgttcacag caaccgagca gactgagcgg 700
gattctgcca ccgcctatcg gatgactgtg gaagtgtctg gcacagtgtc 750
gggcacggcg atccaggagc aaatcgtggg ccaagcagac acgccttgtt 800
tccaggactt caatagctct acagtagctt cacaagtgc caaccatata 850
catggcacca cttcacacag ggaacgcgaa aaggcatacc tgctggcagc 900
gggggtcatt gtctgtatct atataatctg tgctgtcacc ctgactcctg 950
gcgtgcggga gcagagagaa ccctatgaag ccacgagtc tgagccaatc 1000
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acttattact ggcttctctc tcacctcctt ggctttcatg ctgggtgagg 1100
ggaactttgt cttgttttgc acctacacct tgggcttccg caatgaattc 1150
cagaatctac tcttggccat catgctctcg gccactttaa ccattcccat 1200
ctggcagtggt ttcttgaccc gggttgccaa gaagacagct gtatatgttg 1250

Glu	Arg	Asp	Ser	Ala	Thr	Ala	Tyr	Arg	Met	Thr	Val	Glu	Val	Leu	110	115	120
Gly	Thr	Val	Leu	Gly	Thr	Ala	Ile	Gln	Gly	Gln	Ile	Val	Gly	Gln	125	130	135
Ala	Asp	Thr	Pro	Cys	Phe	Gln	Asp	Phe	Asn	Ser	Ser	Thr	Val	Ala	140	145	150
Ser	Gln	Ser	Ala	Asn	His	Thr	His	Gly	Thr	Thr	Ser	His	Arg	Glu	155	160	165
Thr	Gln	Lys	Ala	Tyr	Leu	Leu	Ala	Ala	Gly	Val	Ile	Val	Cys	Ile	170	175	180
Tyr	Ile	Ile	Cys	Ala	Val	Ile	Leu	Ile	Leu	Gly	Val	Arg	Glu	Gln	185	190	195
Arg	Glu	Pro	Tyr	Glu	Ala	Gln	Gln	Ser	Glu	Pro	Ile	Ala	Tyr	Phe	200	205	210
Arg	Gly	Leu	Arg	Leu	Val	Met	Ser	His	Gly	Pro	Tyr	Ile	Lys	Leu	215	220	225
Ile	Thr	Gly	Phe	Leu	Phe	Thr	Ser	Leu	Ala	Phe	Met	Leu	Val	Glu	230	235	240
Gly	Asn	Phe	Val	Leu	Phe	Cys	Thr	Tyr	Thr	Leu	Gly	Phe	Arg	Asn	245	250	255
Glu	Phe	Gln	Asn	Leu	Leu	Leu	Ala	Ile	Met	Leu	Ser	Ala	Thr	Leu	260	265	270
Thr	Ile	Pro	Ile	Trp	Gln	Trp	Phe	Leu	Thr	Arg	Phe	Gly	Lys	Lys	275	280	285
Thr	Ala	Val	Tyr	Val	Gly	Ile	Ser	Ser	Ala	Val	Pro	Phe	Leu	Ile	290	295	300
Leu	Val	Ala	Leu	Met	Glu	Ser	Asn	Leu	Ile	Ile	Thr	Tyr	Ala	Val	305	310	315
Ala	Val	Ala	Ala	Gly	Ile	Ser	Val	Ala	Ala	Ala	Phe	Leu	Leu	Pro	320	325	330
Trp	Ser	Met	Leu	Pro	Asp	Val	Ile	Asp	Asp	Phe	His	Leu	Lys	Gln	335	340	345
Pro	His	Phe	His	Gly	Thr	Glu	Pro	Ile	Phe	Phe	Ser	Phe	Tyr	Val	350	355	360
Phe	Phe	Thr	Lys	Phe	Ala	Ser	Gly	Val	Ser	Leu	Gly	Ile	Ser	Thr	365	370	375
Leu	Ser	Leu	Asp	Phe	Ala	Gly	Tyr	Gln	Thr	Arg	Gly	Cys	Ser	Gln	380	385	390
Pro	Glu	Arg	Val	Lys	Phe	Thr	Leu	Asn	Met	Leu	Val	Thr	Met	Ala	395	400	405
Pro	Ile	Val	Leu	Ile	Leu	Leu	Gly	Leu	Leu	Leu	Phe	Lys	Met	Tyr	410	415	420

Pro Ile Asp Glu Glu Arg Arg Arg Gln Asn Lys Lys Ala Leu Gln
425 430 435

Ala Leu Arg Asp Glu Ala Ser Ser Ser Gly Cys Ser Glu Thr Asp
440 445 450

Ser Thr Glu Leu Ala Ser Ile Leu
455

<210> 21
<211> 571
<212> DNA
<213> Homo sapiens

<400> 21
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tatataatct gtgctgtcat cctgatcctg ggcgtgcggg agcagagaga 100
accctatgaa gccacagcgt ctgagccaat cgctacttc cggggcctac 150
ggctggctcat gagccacggc ccatacatca aacttattac tggcttcttc 200
ttcacctcct tggctttcat gctgggtggag gggaactttg tcttgttttg 250
cacctacacc ttgggcttcc gcaatgaatt ccagaatcta ctctgggcca 300
tcattgctctc ggccacttta accattccca tctggcagtg gttcttgacc 350
cggtttgcca agaagacagc tgtatatgtt ggcatctcat cagcagtgcc 400
atttctcatc ttggtggccc tcattggagag taacctcatc attacatatg 450
cggtagctgt ggcagctggc atcagtggtg cagctgcctt ctactatccc 500
tggtcctatg tgcctgatgt cattgaagac ttccatctga agcagcccca 550
cttccatgga accgagccca t 571

<210> 22
<211> 1173
<212> DNA
<213> Homo sapiens

<400> 22
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aaacagaaaa cctgttagaa atgtggtggt ttcagcaagg cctcagtttc 150
cttctctcag ccttgtaat ttggacatct gctgctttca tattttcata 200
cattactgca gtaaacctcc accatataga ccggctttta ccttatatca 250
gtgacactgg tacagtagct ccagaaaaat gcttatttgg ggcaatgcta 300
aatattcgcg cagttttatg cattgctacc atttatgttc gttataagca 350
agttcatgct ctgagtcctg aagagaacct tatcatcaaa ttaacaaggg 400
ctggccttgt acttggaata ctgagttgtt taggactttc tattgtggca 450

Met Phe Val Gln Thr Ile Leu Ser Tyr Gln Met Gln Pro Lys Ile
140 145 150

His Gly Lys Gln Val Phe Trp Ile Arg Leu Leu Leu Val Ile Trp
155 160 165

Cys Gly Val Ser Ala Leu Ser Met Leu Thr Cys Ser Ser Val Leu
170 175 180

His Ser Gly Asn Phe Gly Thr Asp Leu Glu Gln Lys Leu His Trp
185 190 195

Asn Pro Glu Asp Lys Gly Tyr Val Leu His Met Ile Thr Thr Ala
200 205 210

Ala Glu Trp Ser Met Ser Phe Ser Phe Phe Gly Phe Phe Leu Thr
215 220 225

Tyr Ile Arg Asp Phe Gln Lys Ile Ser Leu Arg Val Glu Ala Asn
230 235 240

Leu His Gly Leu Thr Leu Tyr Asp Thr Ala Pro Cys Pro Ile Asn
245 250 255

Asn Glu Arg Thr Arg Leu Leu Ser Arg Asp Ile
260 265

<210> 24
<211> 485
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 14, 484
<223> unknown base

<400> 24
cgagcgttg ggngcgcca gcggccagcg ctagtggtc tgtaagtc 50
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gagcggagat ctcacaaacg cctagtgttt cgcgcttcgg gagaaaatca 150
gcggtctaatt taattcctct ggtttgttga agcagttacc aagaatcttc 200
aaccccttcc cacaaaagct aattgagtag acgttctgtg tgagtacacg 250
ttctgttga ttacaaaag gtgcaggtat gagcaggtct gaagactaac 300
atattgtgaa gttgtaaaac agaaaacctg ttagaaatgt ggtggtttca 350
gcaaggcttc agtttccttc ctcagccctt tgtaatttgg acatctgctg 400
ctttcatatt ttacataatt actgcagtaa cactccacca tatagacccg 450
gctttacctt atatcagtga cactggtaca gtanc 485

<210> 25
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
acctgttaga aatgtggtg tttcagcaag gcctcagttt 40

<210> 26
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
ggagatagct gctatgggtt cttcaggcac aacttaacat gggaag 46

<210> 27
<211> 1399
<212> DNA
<213> Homo sapiens

<400> 27
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ccttctggtc ttgcgccggt gcaccttcgc ctgtacttg ctgtcgacgc 150
gactgccccg cgggcgagaga ctgggctcca ccgaggagggc tggaggcagg 200
tcgctgtggt tccctccga cctggcagag ctgcgggagc tctctgaggt 250
ccttcgagag taccggaagg agcaccaggc ctacgtgttc ctgctcttct 300
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gtcaacccta acctctctgg atgctctttt ctctgggac actgctctta 750
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ctggactcag ttgottattt gtgtaatgga tgggtctct taaagccct 950
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 gccaggcgtg gtggcaggca cctgtaatcc cagctactcg ggaggtgag 1300
 gcaggagaat tgcttgaacc aaggtggcag aggttgacgt aagccaagat 1350
 cacaccactg cactccagcc tgggtgatag agtgagacac tgtcttgac 1399

<210> 28
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 28
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 Phe Ala Leu Tyr Leu Leu Ser Thr Arg Leu Pro Arg Gly Arg Arg
 20 25 30
 Leu Gly Ser Thr Glu Glu Ala Gly Gly Arg Ser Leu Trp Phe Pro
 35 40 45
 Ser Asp Leu Ala Glu Leu Arg Glu Leu Ser Glu Val Leu Arg Glu
 50 55 60
 Tyr Arg Lys Glu His Gln Ala Tyr Val Phe Leu Leu Phe Cys Gly
 65 70 75
 Ala Tyr Leu Tyr Lys Gln Gly Phe Ala Ile Pro Gly Ser Ser Phe
 80 85 90
 Leu Asn Val Leu Ala Gly Ala Leu Phe Gly Pro Trp Leu Gly Leu
 95 100 105
 Leu Leu Cys Cys Val Leu Thr Ser Val Gly Ala Thr Cys Cys Tyr
 110 115 120
 Leu Leu Ser Ser Ile Phe Gly Lys Gln Leu Val Val Ser Tyr Phe
 125 130 135
 Pro Asp Lys Val Ala Leu Leu Gln Arg Lys Val Glu Glu Asn Arg
 140 145 150
 Asn Ser Leu Phe Phe Phe Leu Leu Phe Leu Arg Leu Phe Pro Met
 155 160 165
 Thr Pro Asn Trp Phe Leu Asn Leu Ser Ala Pro Ile Leu Asn Ile
 170 175 180
 Pro Ile Val Gln Phe Phe Phe Ser Val Leu Ile Gly Leu Ile Pro
 185 190 195
 Tyr Asn Phe Ile Cys Val Gln Thr Gly Ser Ile Leu Ser Thr Leu
 200 205 210

Thr Ser Leu Asp Ala Leu Phe Ser Trp Asp Thr Val Phe Lys Leu
 215 225
 Leu Ala Ile Ala Met Val Ala Leu Ile Pro Gly Thr Leu Ile Lys
 230 240
 Lys Phe Ser Gln Lys His Leu Gln Leu Asn Glu Thr Ser Thr Ala
 245 255
 Asn His Ile His Ser Arg Lys Asp Thr
 260

<210> 29
 <211> 1292
 <212> DNA
 <213> Homo sapiens

<400> 29
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 ggtttccgaa ctgccagctc agaataggaa aataacttgg gattttatat 150
 tggaagacat ggatcttgct gccaacgaga tcagcattta tgacaaactt 200
 tcagagactg ttgatttggt gagacagacc ggccatcagt gtggcatgtc 250
 agagaagcca attgaaaaat ttatcagaca gctgctggaa aagaatgaac 300
 ctccagagacc cccccgcag tatcctctcc ttatagttgt gtataagggt 350
 ctgcacacct tgggattaat cttgtcact gcctactttg tgattcaacc 400
 ttccagocca ttagcacctg agccagtgtt ttctggagct cacacctggc 450
 gctcactcat ccatcacatt aggtgatgt ccttgcccat tgccaagaag 500
 tacatgtcag aaaataaggg agttcctctg catgggggtg atgaagacag 550
 accctttcca gactttgacc cctggtggac aaacgactgt gagcagaatg 600
 agtcagagcc cattcctgcc aactgcactg gctgtgccca gaaacacctg 650
 aaggtgatgc tcctggaaga cgcccccaagg aaatttgaga ggctccatcc 700
 actggtgatc aagacgggaa agccccctgt ggaggaaagag attcagcatt 750
 ttttgtgcca gtacccctgag ggcacagaag gcttctctga agggtttttc 800
 gccaaagtgt ggcgctgctt tcctgagcgg tggttcccat ttccattacc 850
 atggaggaga cctctgaaca gatcacaaat gttacgtgag ctttttccct 900
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 cctattttatc attggcagcg gtgaggccat gttgcagctc atccctccct 1050
 tccagtgcg aagacattgt cagtctgtgg ccattgcaat agagccaggg 1100
 gatatcggt atgtcgacac caccactgg aaggtctacg ttatagccag 1150

aggggtccag cctttggtca tctgcgatgg aaccgctttc tcagaactgt 1200
 aggaaataga actgtgcaca ggaacagctt ccagagccga aaaccaggtt 1250
 gaaaggggaa aaataaaaac aaaaacgatg aaactgcaaa aa 1292

<210> 30
 <211> 347
 <212> PRT
 <213> Homo sapiens

<400> 30
 Met Asp Leu Ala Ala Asn Glu Ile Ser Ile Tyr Asp Lys Leu Ser
 1 5 10 15
 Glu Thr Val Asp Leu Val Arg Gln Thr Gly His Gln Cys Gly Met
 20 25 30
 Ser Glu Lys Ala Ile Glu Lys Phe Ile Arg Gln Leu Leu Glu Lys
 35 40 45
 Asn Glu Pro Gln Arg Pro Pro Pro Gln Tyr Pro Leu Leu Ile Val
 50 55 60
 Val Tyr Lys Val Leu Ala Thr Leu Gly Leu Ile Leu Leu Thr Ala
 65 70 75
 Tyr Phe Val Ile Gln Pro Phe Ser Pro Leu Ala Pro Glu Pro Val
 80 85 90
 Leu Ser Gly Ala His Thr Trp Arg Ser Leu Ile His His Ile Arg
 95 100 105
 Leu Met Ser Leu Pro Ile Ala Lys Lys Tyr Met Ser Glu Asn Lys
 110 115 120
 Gly Val Pro Leu His Gly Gly Asp Glu Asp Arg Pro Phe Pro Asp
 125 130 135
 Phe Asp Pro Trp Trp Thr Asn Asp Cys Glu Gln Asn Glu Ser Glu
 140 145 150
 Pro Ile Pro Ala Asn Cys Thr Gly Cys Ala Gln Lys His Leu Lys
 155 160 165
 Val Met Leu Leu Glu Asp Ala Pro Arg Lys Phe Glu Arg Leu His
 170 175 180
 Pro Leu Val Ile Lys Thr Gly Lys Pro Leu Leu Glu Glu Glu Ile
 185 190 195
 Gln His Phe Leu Cys Gln Tyr Pro Glu Ala Thr Glu Gly Phe Ser
 200 205 210
 Glu Gly Phe Phe Ala Lys Trp Trp Arg Cys Phe Pro Glu Arg Trp
 215 220 225
 Phe Pro Phe Pro Tyr Pro Trp Arg Arg Pro Leu Asn Arg Ser Gln
 230 235 240
 Met Leu Arg Glu Leu Phe Pro Val Phe Thr His Leu Pro Phe Pro
 245 250 255

Lys Asp Ala Ser Leu Asn Lys Cys Ser Phe Leu His Pro Glu Pro
 260 265 270
 Val Val Gly Ser Lys Met His Lys Met Pro Asp Leu Phe Ile Ile
 275 280 285
 Gly Ser Gly Glu Ala Met Leu Gln Leu Ile Pro Pro Phe Gln Cys
 290 295 300
 Arg Arg His Cys Gln Ser Val Ala Met Pro Ile Glu Pro Gly Asp
 305 310 315
 Ile Gly Tyr Val Asp Thr Thr His Trp Lys Val Tyr Val Ile Ala
 320 325 330
 Arg Gly Val Gln Pro Leu Val Ile Cys Asp Gly Thr Ala Phe Ser
 335 340 345

Glu Leu

<210> 31
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 31
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 agctcagaat agggaaataa cttgggattt tatattgaa gacatggatc 200
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 aaaatttatc agacagctgc tggaaaagaa tgaacctcag agaccccccc 350
 cgcagtatcc tctccttata gttgtgtata aggttctcgc aaccttggga 400
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<210> 32
 <211> 3531
 <212> DNA
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 tcaccacaca gaatgtatac ttctacgatg gcagcactga gcgcgtggaa 1000
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<210> 33

<211> 1003

<212> PRT

<213> Homo sapiens

<400> 33

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Met	Ser	Gly	Phe	Trp	Asn	Ala	Cys	Tyr	Asp	Met	Leu	Met	Ser	Ser
				20					25					30

Gly	Gln	Arg	Arg	Gln	Trp	Glu	Arg	Ala	Gln	Ser	Arg	Arg	Ala	Phe
				35					40					45

Gln	Glu	Leu	Val	Glu	Pro	Ala	Gln	Arg	Arg	Ala	Arg	Leu	Glu	
				50				55					60	

Gly	Leu	Arg	Tyr	Thr	Ala	Val	Leu	Lys	Gln	Gln	Ala	Thr	Gln	His
				65					70					75

Ser	Met	Ala	Leu	Leu	His	Trp	Gly	Ala	Leu	Trp	Arg	Gln	Leu	Ala
				80					85					90

Ser	Pro	Cys	Gly	Ala	Trp	Ala	Leu	Arg	Asp	Thr	Pro	Ile	Pro	Arg
				95					100					105

Trp	Lys	Leu	Ser	Ser	Ala	Glu	Thr	Tyr	Ser	Arg	Met	Arg	Leu	Lys
				110					115					120

Leu	Val	Pro	Asn	His	His	Phe	Asp	Pro	His	Leu	Glu	Ala	Ser	Ala
				125					130					135

Leu	Arg	Asp	Asn	Leu	Gly	Glu	Val	Pro	Leu	Thr	Pro	Thr	Glu	Glu
				140					145					150

Ala	Ser	Leu	Pro	Leu	Ala	Val	Thr	Lys	Glu	Ala	Lys	Val	Ser	Thr
				155					160					165

Pro	Pro	Glu	Leu	Leu	Gln	Glu	Asp	Gln	Leu	Gly	Glu	Asp	Glu	Leu
				170					175					180

Ala	Glu	Leu	Glu	Thr	Pro	Met	Glu	Ala	Ala	Glu	Leu	Asp	Glu	Gln
				185					190					195

Arg	Glu	Lys	Leu	Val	Leu	Ser	Ala	Glu	Cys	Gln	Leu	Val	Thr	Val
				200					205					210

Val	Ala	Val	Val	Pro	Gly	Leu	Leu	Glu	Val	Thr	Thr	Gln	Asn	Val
				215					220					225

Tyr	Phe	Tyr	Asp	Gly	Ser	Thr	Glu	Arg	Val	Glu	Thr	Glu	Glu	Gly
				230					235					240

Ile	Gly	Tyr	Asp	Phe	Arg	Arg	Pro	Leu	Ala	Gln	Leu	Arg	Glu	Val
				245					250					255

His	Leu	Arg	Arg	Phe	Asn	Leu	Arg	Arg	Ser	Ala	Leu	Glu	Leu	Phe
				260					265					270

Phe Ile Asp Gln	Ala Asn Tyr	Phe Leu Asn	Phe Pro Cys	Lys Val
275		280		285
Gly Thr Thr Pro	Val Ser Ser	Pro Ser Gln	Thr Pro Arg	Pro Gln
290		295		300
Pro Gly Pro Ile	Pro Pro His	Thr Gln Val	Arg Asn Gln	Val Tyr
305		310		315
Ser Trp Leu Leu	Arg Leu Arg	Pro Pro Ser	Gln Gly Tyr	Leu Ser
320		325		330
Ser Arg Ser Pro	Gln Glu Met	Leu Arg Ala	Ser Gly Leu	Thr Gln
335		340		345
Lys Trp Val Gln	Arg Glu Ile	Ser Asn Phe	Glu Tyr Leu	Met Gln
350		355		360
Leu Asn Thr Ile	Ala Gly Arg	Thr Tyr Asn	Asp Leu Ser	Gln Tyr
365		370		375
Pro Val Phe Pro	Trp Val Leu	Gln Asp Tyr	Val Ser Pro	Thr Leu
380		385		390
Asp Leu Ser Asn	Pro Ala Val	Phe Arg Asp	Leu Ser Lys	Pro Ile
395		400		405
Gly Val Val Asn	Pro Lys His	Ala Gln Leu	Val Arg Glu	Lys Tyr
410		415		420
Glu Ser Phe Glu	Asp Pro Ala	Gly Thr Ile	Asp Lys Phe	His Tyr
425		430		435
Gly Thr His Tyr	Ser Asn Ala	Ala Gly Val	Met His Tyr	Leu Ile
440		445		450
Arg Val Glu Pro	Phe Thr Ser	Leu His Val	Gln Leu Gln	Ser Gly
455		460		465
Arg Phe Asp Cys	Ser Asp Arg	Gln Phe His	Ser Val Ala	Ala Ala
470		475		480
Trp Gln Ala Arg	Leu Glu Ser	Pro Ala Asp	Val Lys Glu	Leu Ile
485		490		495
Pro Glu Phe Phe	Tyr Phe Pro	Asp Phe Leu	Glu Asn Gln	Asn Gly
500		505		510
Phe Asp Leu Gly	Cys Leu Gln	Leu Thr Asn	Glu Lys Val	Gly Asp
515		520		525
Val Val Leu Pro	Pro Trp Ala	Ser Ser Pro	Glu Asp Phe	Ile Gln
530		535		540
Gln His Arg Gln	Ala Leu Glu	Ser Glu Tyr	Val Ser Ala	His Leu
545		550		555
His Glu Trp Ile	Asp Leu Ile	Phe Gly Tyr	Lys Gln Arg	Gly Pro
560		565		570
Ala Ala Glu Glu	Ala Leu Asn	Val Phe Tyr	Tyr Cys Thr	Tyr Glu
575		580		585

Gly Ala Val Asp	Leu Asp His Val Thr	Asp Glu Arg Glu Arg Lys
590	595	600
Ala Leu Glu Gly	Ile Ile Ser Asn Phe	Gly Gln Thr Pro Cys Gln
605	610	615
Leu Leu Lys Glu	Pro His Pro Thr Arg	Leu Ser Ala Glu Glu Ala
620	625	630
Ala His Arg Leu	Ala Arg Leu Asp Thr	Asn Ser Pro Ser Ile Phe
635	640	645
Gln His Leu Asp	Glu Leu Lys Ala Phe	Phe Ala Glu Val Thr Val
650	655	660
Ser Ala Ser Gly	Leu Leu Gly Thr His	Ser Trp Leu Pro Tyr Asp
665	670	675
Arg Asn Ile Ser	Asn Tyr Phe Ser Phe	Ser Lys Asp Pro Thr Met
680	685	690
Gly Ser His Lys	Thr Gln Arg Leu Leu	Ser Gly Pro Trp Val Pro
695	700	705
Gly Ser Gly Val	Ser Gly Gln Ala Leu	Ala Val Ala Pro Asp Gly
710	715	720
Lys Leu Leu Phe	Ser Gly Gly His Trp	Asp Gly Ser Leu Arg Val
725	730	735
Thr Ala Leu Pro	Arg Gly Lys Leu Leu	Ser Gln Leu Ser Cys His
740	745	750
Leu Asp Val Val	Thr Cys Leu Ala Leu	Asp Thr Cys Gly Ile Tyr
755	760	765
Leu Ile Ser Gly	Ser Arg Asp Thr Thr	Cys Met Val Trp Arg Leu
770	775	780
Leu His Gln Gly	Gly Leu Ser Val Gly	Leu Ala Pro Lys Pro Val
785	790	795
Gln Val Leu Tyr	Gly His Gly Ala Ala	Val Ser Cys Val Ala Ile
800	805	810
Ser Thr Glu Leu	Asp Met Ala Val Ser	Gly Ser Glu Asp Gly Thr
815	820	825
Val Ile Ile His	Thr Val Arg Arg Gly	Gln Phe Val Ala Ala Leu
830	835	840
Arg Pro Leu Gly	Ala Thr Phe Pro Gly	Pro Ile Phe His Leu Ala
845	850	855
Leu Gly Ser Glu	Gly Gln Ile Val Val	Gln Ser Ser Ala Trp Glu
860	865	870
Arg Pro Gly Ala	Gln Val Thr Tyr Ser	Leu His Leu Tyr Ser Val
875	880	885
Asn Gly Lys Leu	Arg Ala Ser Leu Pro	Leu Ala Glu Gln Pro Thr
890	895	900

Ala Leu Thr Val Thr Glu Asp Phe Val Leu Leu Gly Thr Ala Gln
905 910 915

Cys Ala Leu His Ile Leu Gln Leu Asn Thr Leu Leu Pro Ala Ala
920 925 930

Pro Pro Leu Pro Met Lys Val Ala Ile Arg Ser Val Ala Val Thr
935 940 945

Lys Glu Arg Ser His Val Leu Val Gly Leu Glu Asp Gly Lys Leu
950 955 960

Ile Val Val Val Ala Gly Gln Pro Ser Glu Val Arg Ser Ser Gln
965 970 975

Phe Ala Arg Lys Leu Trp Arg Ser Ser Arg Arg Ile Ser Gln Val
980 985 990

Ser Ser Gly Glu Thr Glu Tyr Asn Pro Thr Glu Ala Arg
995 1000

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<211> 43
<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<210> 35
<211> 1395
<212> DNA
<213> Homo sapiens

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<210> 36
 <211> 321
 <212> PRT
 <213> Homo sapiens

<400> 36
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 Pro Gly Leu Met Cys Val Phe Gln Gly Tyr Ser Ser Lys Gly Leu
 35 40 45
 Ile Gln Arg Ser Val Phe Asn Leu Gln Ile Tyr Gly Val Leu Gly
 50 55 60
 Leu Phe Trp Thr Leu Asn Trp Val Leu Ala Leu Gly Gln Cys Val
 65 70 75
 Leu Ala Gly Ala Phe Ala Ser Phe Tyr Trp Ala Phe His Lys Pro
 80 85 90
 Gln Asp Ile Pro Thr Phe Pro Leu Ile Ser Ala Phe Ile Arg Thr
 95 100 105
 Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile Leu
 110 115 120
 Thr Leu Val Gln Ile Ala Arg Val Ile Leu Glu Tyr Ile Asp His
 125 130 135

Lys Leu Arg Gly Val Gln Asn Pro Val Ala Arg Cys Ile Met Cys
 140 145 150
 Cys Phe Lys Cys Cys Leu Trp Cys Leu Glu Lys Phe Ile Lys Phe
 155 160 165
 Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Lys Asn
 170 175 180
 Phe Cys Val Ser Ala Lys Asn Ala Phe Met Leu Leu Met Arg Asn
 185 190 195
 Ile Val Arg Val Val Val Leu Asp Lys Val Thr Asp Leu Leu Leu
 200 205 210
 Phe Phe Gly Lys Lys Leu Val Val Gly Gly Val Gly Val Leu Ser
 215 220 225
 Phe Phe Phe Phe Ser Gly Arg Ile Pro Gly Leu Gly Lys Asp Phe
 230 235 240
 Lys Ser Pro His Leu Asn Tyr Tyr Trp Leu Pro Ile Met Thr Ser
 245 250 255
 Ile Leu Gly Ala Tyr Val Ile Ala Ser Gly Phe Phe Ser Val Phe
 260 265 270
 Gly Met Cys Val Asp Thr Leu Phe Leu Cys Phe Leu Glu Asp Leu
 275 280 285
 Glu Arg Asn Asn Gly Ser Leu Asp Arg Pro Tyr Tyr Met Ser Lys
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 Ser Leu Leu Lys Ile Leu Gly Lys Lys Asn Glu Ala Pro Pro Asp
 305 310 315
 Asn Lys Lys Arg Lys Lys
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<210> 37

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 37

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<210> 38

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

gtctttacc agccccggga tgcg 24

<210> 39

<211> 50

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 40
<211> 1365
<212> DNA
<213> Homo sapiens

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agggtgtcca gagccagagg gtccttctct tcgtggcctc ggacgtggat 150
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 tcacttcac caggctctgg acagcctctc caggagtaac ctggacaagc 1300
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<210> 41

<211> 566

<212> PRT

<213> Homo sapiens

<400> 41

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Cys	Ala	Cys	Lys	Ile	Leu	Gln	Ala	Leu	Phe	Gln	Cys	Asp	His	Val	35	40	45	
Gln	Tyr	Thr	Leu	Val	Pro	Val	Ser	Gly	Trp	Gln	Glu	Leu	Glu	Thr	50	55	60	
Ala	Phe	Leu	Glu	His	Lys	Glu	Gln	Phe	His	Tyr	Phe	Ile	Leu	Ile	65	70	75	
Asn	Cys	Gly	Ala	Asn	Val	Asp	Leu	Leu	Asp	Ile	Leu	Gln	Pro	Asp	80	85	90	
Glu	Asp	Thr	Ile	Phe	Phe	Val	Cys	Asp	Ser	His	Arg	Pro	Val	Asn	95	100	105	
Val	Val	Asn	Val	Tyr	Asn	Asp	Thr	Gln	Ile	Lys	Leu	Leu	Ile	Lys	110	115	120	
Gln	Asp	Asp	Asp	Leu	Glu	Val	Pro	Ala	Tyr	Glu	Asp	Ile	Phe	Arg	125	130	135	
Asp	Glu	Glu	Glu	Asp	Glu	Glu	His	Ser	Gly	Asn	Asp	Ser	Asp	Gly	140	145	150	
Ser	Glu	Pro	Ser	Glu	Lys	Arg	Thr	Arg	Leu	Glu	Glu	Glu	Ile	Val	155	160	165	
Glu	Gln	Thr	Met	Arg	Arg	Arg	Gln	Arg	Arg	Glu	Trp	Glu	Ala	Arg	170	175	180	
Arg	Arg	Asp	Ile	Leu	Phe	Asp	Tyr	Glu	Gln	Tyr	Glu	Tyr	His	Gly	185	190	195	
Thr	Ser	Ser	Ala	Met	Val	Met	Phe	Glu	Leu	Ala	Trp	Met	Leu	Ser	200	205	210	
Lys	Asp	Leu	Asn	Asp	Met	Leu	Trp	Trp	Ala	Ile	Val	Gly	Leu	Thr	215	220	225	
Asp	Gln	Trp	Val	Gln	Asp	Lys	Ile	Thr	Gln	Met	Lys	Tyr	Val	Thr	230	235	240	
Asp	Val	Gly	Val	Leu	Gln	Arg	His	Val	Ser	Arg	His	Asn	His	Arg				

245	250	255
Asn Glu Asp Glu	Glu Asn Thr Leu Ser	Val Asp Cys Thr Arg Ile
260		265
Ser Phe Glu Tyr	Asp Leu Arg Leu Val	Leu Tyr Gln His Trp Ser
275		280
Leu His Asp Ser	Leu Cys Asn Thr Ser	Tyr Thr Ala Ala Arg Phe
290		295
Lys Leu Trp Ser	Val His Gly Gln Lys	Arg Leu Gln Glu Phe Leu
305		310
Ala Asp Met Gly	Leu Pro Leu Lys Gln	Val Lys Gln Lys Phe Gln
320		325
Ala Met Asp Ile	Ser Leu Lys Glu Asn	Leu Arg Glu Met Ile Glu
335		340
Glu Ser Ala Asn	Lys Phe Gly Met Lys	Asp Met Arg Val Gln Thr
350		355
Phe Ser Ile His	Phe Gly Phe Lys His	Lys Phe Leu Ala Ser Asp
365		370
Val Val Phe Ala	Thr Met Ser Leu Met	Glu Ser Pro Glu Lys Asp
380		385
Gly Ser Gly Thr	Asp His Phe Ile Gln	Ala Leu Asp Ser Leu Ser
395		400
Arg Ser Asn Leu	Asp Lys Leu Tyr His	Gly Leu Glu Leu Ala Lys
410		415
Lys Gln Leu Arg	Ala Thr Gln Gln Thr	Ile Ala Ser Cys Leu Cys
425		430
Thr Asn Leu Val	Ile Ser Gln Gly Pro	Phe Leu Tyr Cys Ser Leu
440		445
Met Glu Gly Thr	Pro Asp Val Met Leu	Phe Ser Arg Pro Ala Ser
455		460
Leu Ser Leu Leu	Ser Lys His Leu Leu	Lys Ser Phe Val Cys Ser
470		475
Thr Lys Asn Arg	Arg Cys Lys Leu Leu	Pro Leu Val Met Ala Ala
485		490
Pro Leu Ser Met	Glu His Gly Thr Val	Thr Val Val Gly Ile Pro
500		505
Pro Glu Thr Asp	Ser Ser Asp Arg Lys	Asn Phe Phe Gly Arg Ala
515		520
Phe Glu Lys Ala	Ala Glu Ser Thr Ser	Ser Arg Met Leu His Asn
530		535
His Phe Asp Leu	Ser Val Ile Glu Leu	Lys Ala Glu Asp Arg Ser
545		550
Lys Phe Leu Asp	Ala Leu Ile Ser Leu	Leu Ser

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<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 44, 118, 172, 183
<223> unknown base

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ctcttcgttg cctcggangt ggatgctctg tgtggtgca agatccttca 150
ggccttggtc cagtgtgacc angtgcaata tanctgggtt ccagtttctg 200
ggtggcaaga acttgaaact gcatttcttg agcataaaga acagtttcat 250
tattttattc tcataaaact tggagctaata gtagacctat tggatattct 300
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<210> 43
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
ttccgcaaag agttctacga ggtgg 25

<210> 44
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
attgacaaca ttgactggcc tatggg 26

<210> 45
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
gtggatgctc tgtgtgcgtg caagatcctt caggccttgt tccagtgtga 50

<210> 46

<211> 3089
<212> DNA
<213> Homo sapiens

<400> 46
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tttctagtga accacgaagg gacgatacca gaaaacaccc tcaacccaaa 100
ggaaatagac tacagcccca attgctgac tttggctata gaaaaaagaa 150
aggaacgaaa agagacagtt ttttttgaa agctaagtct tccctttatc 200
gagtcaagaa acccccccct cttgagctat ttacagcttt taacaattga 250
gtaaagtacg ctccgggtcac catggtgaca gccgcctcg gtcccgtctg 300
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ccccacgcc ctgectgaga tcagacccta cattaatata accatcctga 500
aggggtgcaa aggggaccca ggcccaatgg gcctgccagg gtacatgggg 550
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tctcagtggt cgcgaagacg gccctgcaca gcggcgagga cttccagacg 700
ctgctcttcg aaagggtctt tgtgaacctt gatgggtgct ttgaca'ggc 750
gaccggccag ttgctgctc cctgcgtgg catctacttc ttcagcctca 800
atgtgcacag ctggaattac aaggagacgt acgtgcacat tatgcataac 850
cagaaagagg ctgtcatcct gtacgcgcag ccagcgcagc gcagcatcat 900
gcagagccag agtgtgatgc tggacctggc ctacggggac cgcgtctggg 950
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ccctgcagg gctcagtttg caetgctgtg aagcaggaag gccagggagg 1150
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ccagcacttc tcaaacttg aaatgcatgc gaatcaccgc gggttcgtgt 1350
taaatgcaga ttctgactca gcaggctctg gtgggtccag gattctgtgt 1400
ttctcatatg ttctgggtg atgctgatgg ggctcagtcta tgaaccacac 1450

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taaagaatgc tgtctcctct tggaaaaaaa aaaaaaaa 3089

<210> 47

<211> 259

<212> PRT

<213> Homo sapiens

<220>

<221> Signal Peptide

<222> 1-20

<223> Signal Peptide

<220>

<221> N-glycosylation Site

<222> 72-75

<223> N-glycosylation Site

<220>

<221> Clq Domain Proteins

<222> 144-178, 78-111, 84-117

<223> Clq Domain Proteins

<400> 47

Met	Val	Thr	Ala	Ala	Leu	Gly	Pro	Val	Trp	Ala	Ala	Leu	Leu	Leu
1					5				10					15

Phe	Leu	Leu	Met	Cys	Glu	Ile	Arg	Met	Val	Glu	Leu	Thr	Phe	Asp
				20					25					30

Arg	Ala	Val	Ala	Ser	Gly	Cys	Gln	Arg	Cys	Cys	Asp	Ser	Glu	Asp
				35					40					45

Pro	Leu	Asp	Pro	Ala	His	Val	Ser	Ser	Ala	Ser	Ser	Ser	Gly	Arg
				50					55					60

Pro	His	Ala	Leu	Pro	Glu	Ile	Arg	Pro	Tyr	Ile	Asn	Ile	Thr	Ile
				65					70					75

Leu	Lys	Gly	Asp	Lys	Gly	Asp	Pro	Gly	Pro	Met	Gly	Leu	Pro	Gly
				80					85					90

Tyr	Met	Gly	Arg	Glu	Gly	Pro	Gln	Gly	Glu	Pro	Gly	Pro	Gln	Gly
				95					100					105

Ser	Lys	Gly	Asp	Lys	Gly	Glu	Met	Gly	Ser	Pro	Gly	Ala	Pro	Cys
				110					115					120

Gln	Lys	Arg	Phe	Phe	Ala	Phe	Ser	Val	Gly	Arg	Lys	Thr	Ala	Leu
				125					130					135

His	Ser	Gly	Glu	Asp	Phe	Gln	Thr	Leu	Leu	Phe	Glu	Arg	Val	Phe
				140					145					150

Val	Asn	Leu	Asp	Gly	Cys	Phe	Asp	Met	Ala	Thr	Gly	Gln	Phe	Ala
				155					160					165

Ala	Pro	Leu	Arg	Gly	Ile	Tyr	Phe	Phe	Ser	Leu	Asn	Val	His	Ser
				170					175					180

Trp	Asn	Tyr	Lys	Glu	Thr	Tyr	Val	His	Ile	Met	His	Asn	Gln	Lys
				185					190					195

Glu	Ala	Val	Ile	Leu	Tyr	Ala	Gln	Pro	Ser	Glu	Arg	Ser	Ile	Met
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

200	205	210
Gln Ser Gln Ser Val Met Leu Asp Leu	Ala Tyr Gly Asp Arg Val	
215	220	225
Trp Val Arg Leu Phe Lys Arg Gln Arg	Glu Asn Ala Ile Tyr Ser	
230	235	240
Asn Asp Phe Asp Thr Tyr Ile Thr Phe	Ser Gly His Leu Ile Lys	
245	250	255
Ala Glu Asp Asp		

<210> 48
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 48
 ccagacgctg ctcttcgaaa gggtc 25

<210> 49
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 49
 ggtccccgta ggccaggtcc agc 23

<210> 50
 <211> 50
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 50
 ctactcttc agcctcaatg tgcacagctg gaattacaag gagacgtacg 50

<210> 51
 <211> 2768
 <212> DNA
 <213> Homo sapiens

<400> 51
 actcgaacgc agttgcttgc ggaccacgga cccctcggg ccgacccgc 50
 caggaaagac tgaggccgcg gctgcctccg ccggtctccc tgcgcgcgcg 100
 ccgcctccgc ggacagaaga tgtgctccag ggtccctctg ctgctgccgc 150
 tgcctcgtct actggcctg gggcctgggg tgcagggtgc cccatccggc 200
 tgccagtgcg gccagccaca gacagtcttc tgcactgcc gccaggggac 250

cacggtgccc cgagacgtgc caccgcacac ggtggggctg tacgtctttg 300
 agaacggcat caccatgctc gacgcaggca gctttgccgg cctgccgggc 350
 ctgcagctcc tggacctgtc acagaaccag atcgccagcc tgcccagcg 400
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 cgctctacc tgggcaagaa cgcacccgc cacatccagc ctggtgcctt 550
 cgacacgtc gaccgcctcc tggagctcaa gctgcaggac aacgagctgc 600
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 cacaacagcc tcttggccct ggagcccggc atcctggaca ctgccaacgt 700
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tttccattt attctgggaa gatgtttttc aaactcagag acaaggactt 2700
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aaaagatgaa gtgtgaaa 2768

<210> 52
<211> 673
<212> PRT
<213> Homo sapiens

<400> 52
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Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45
Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
50 55 60
Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
65 70 75
Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
80 85 90
Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu

95										100					105				
Asp	Leu	Thr	Ala	Asn	Arg	Leu	His	Glu	Ile	Thr	Asn	Glu	Thr	Phe					
				110					115					120					
Arg	Gly	Leu	Arg	Arg	Leu	Glu	Arg	Leu	Tyr	Leu	Gly	Lys	Asn	Arg					
				125					130					135					
Ile	Arg	His	Ile	Gln	Pro	Gly	Ala	Phe	Asp	Thr	Leu	Asp	Arg	Leu					
				140					145					150					
Leu	Glu	Leu	Lys	Leu	Gln	Asp	Asn	Glu	Leu	Arg	Ala	Leu	Pro	Pro					
				155					160					165					
Leu	Arg	Leu	Pro	Arg	Leu	Leu	Leu	Leu	Asp	Leu	Ser	His	Asn	Ser					
				170					175					180					
Leu	Leu	Ala	Leu	Glu	Pro	Gly	Ile	Leu	Asp	Thr	Ala	Asn	Val	Glu					
				185					190					195					
Ala	Leu	Arg	Leu	Ala	Gly	Leu	Gly	Leu	Gln	Gln	Leu	Asp	Glu	Gly					
				200					205					210					
Leu	Phe	Ser	Arg	Leu	Arg	Asn	Leu	His	Asp	Leu	Asp	Val	Ser	Asp					
				215					220					225					
Asn	Gln	Leu	Glu	Arg	Val	Pro	Pro	Val	Ile	Arg	Gly	Leu	Arg	Gly					
				230					235					240					
Leu	Thr	Arg	Leu	Arg	Leu	Ala	Gly	Asn	Thr	Arg	Ile	Ala	Gln	Leu					
				245					250					255					
Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp					
				260					265					270					
Val	Ser	Asn	Leu	Ser	Leu	Gln	Ala	Leu	Pro	Gly	Asp	Leu	Ser	Gly					
				275					280					285					
Leu	Phe	Pro	Arg	Leu	Arg	Leu	Leu	Ala	Ala	Ala	Arg	Asn	Pro	Phe					
				290					295					300					
Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu					
				305					310					315					
Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe					
				320					325					330					
Pro	Pro	Lys	Asn	Ala	Gly	Arg	Leu	Leu	Leu	Glu	Leu	Asp	Tyr	Ala					
				335					340					345					
Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr					
				350					355					360					
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu					
				365					370					375					
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro					
				380					385					390					
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln					
				395					400					405					
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys					

410	415	420
His Leu Gly Thr	Arg His His Leu Ala	Cys Leu Cys Pro Glu Gly
425	430	435
Phe Thr Gly Leu	Tyr Cys Glu Ser Gln Met	Gly Gln Gly Thr Arg
440	445	450
Pro Ser Pro Thr	Pro Val Thr Pro Arg	Pro Pro Arg Ser Leu Thr
455	460	465
Leu Gly Ile Glu	Pro Val Ser Pro Thr	Ser Leu Arg Val Gly Leu
470	475	480
Gln Arg Tyr Leu	Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
485	490	495
Leu Thr Tyr Arg	Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr
500	505	510
Leu Arg Leu Pro	Ala Ser Leu Ala Glu Tyr	Thr Val Thr Gln Leu
515	520	525
Arg Pro Asn Ala	Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro
530	535	540
Gly Arg Val Pro	Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr
545	550	555
Pro Pro Ala Val	His Ser Asn His Ala	Pro Val Thr Gln Ala Arg
560	565	570
Glu Gly Asn Leu	Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val
575	580	585
Leu Leu Ala Ala	Leu Ala Ala Val Gly	Ala Tyr Cys Val Arg
590	595	600
Arg Gly Arg Ala	Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val
605	610	615
Gly Pro Gly Ala	Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro
620	625	630
Leu Glu Pro Gly	Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu
635	640	645
Pro Ser Gly Ser	Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly
650	655	660
Pro Gly Leu Gln	Ser Pro Leu His Ala	Lys Pro Tyr Ile
665	670	

<210> 53

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

tcttcagccg cttgcgcaac ctc 23

200 205 210

Gln Ser Gln Ser Val Met Leu Asp Leu Ala Tyr Gly Asp Arg Val
 215 220 225

Trp Val Arg Leu Phe Lys Arg Gln Arg Glu Asn Ala Ile Tyr Ser
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 245 250 255

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 <213> Artificial Sequence

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 <211> 2768
 <212> DNA
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 tgctcctgct actggccctg gggcctggg tgcaggctg ccatccgcg 200
 tgccagtga gccagccaca gacagtcttc tgactgccc gccaggggac 250

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 aaaagatgaa gtgtgaaa 2768

<210> 52

<211> 673

<212> FRT

<213> Homo sapiens

<400> 52

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Ala	Leu	Gly	Pro	Gly	Val	Gln	Gly	Cys	Pro	Ser	Gly	Cys	Gln	Cys
				20					25					30
Ser	Gln	Pro	Gln	Thr	Val	Phe	Cys	Thr	Ala	Arg	Gln	Gly	Thr	Asn
				35					40					45
Val	Pro	Arg	Asp	Val	Pro	Pro	Asp	Thr	Val	Gly	Leu	Tyr	Val	Phe
				50					55					60
Glu	Asn	Gly	Ile	Thr	Met	Leu	Asp	Ala	Gly	Ser	Phe	Ala	Gly	Leu
				65					70					75
Pro	Gly	Leu	Gln	Leu	Leu	Asp	Leu	Ser	Gln	Asn	Gln	Ile	Ala	Ser
				80					85					90
Leu	Pro	Ser	Gly	Val	Phe	Gln	Pro	Leu	Ala	Asn	Leu	Ser	Asn	Leu

95	100	105
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Arg Gly Leu Arg	Arg Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg	
125	130	135
Ile Arg His Ile	Gln Pro Gly Ala Phe Asp Thr Leu Asp Arg Leu	
140	145	150
Leu Glu Leu Lys	Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro	
155	160	165
Leu Arg Leu Pro	Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser	
170	175	180
Leu Leu Ala Leu	Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu	
185	190	195
Ala Leu Arg Leu	Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly	
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Leu Phe Ser Arg	Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp	
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230	235	240
Leu Thr Arg Leu	Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu	
245	250	255
Arg Pro Glu Asp	Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp	
260	265	270
Val Ser Asn Leu	Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly	
275	280	285
Leu Phe Pro Arg	Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe	
290	295	300
Asn Cys Val Cys	Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu	
305	310	315
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Pro Pro Lys Asn	Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala	
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Asp Phe Gly Cys	Pro Ala Thr Thr Thr Thr Ala Thr Val Pro Thr	
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365	370	375
Ala Pro Thr Trp	Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro	
380	385	390
Ser Pro Pro Ser	Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln	
395	400	405
Pro Gln Asp Cys	Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys	

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425	430	435
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440	445	450
Pro Ser Pro Thr	Pro Val Thr Pro Arg Pro	Pro Arg Ser Leu Thr
455	460	465
Leu Gly Ile Glu	Pro Val Ser Pro Thr Ser	Leu Arg Val Gly Leu
470	475	480
Gln Arg Tyr Leu	Gln Gly Ser Ser Val Gln	Leu Arg Ser Leu Arg
485	490	495
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500	505	510
Leu Arg Leu Pro	Ala Ser Leu Ala Glu Tyr	Thr Val Thr Gln Leu
515	520	525
Arg Pro Asn Ala	Thr Tyr Ser Val Cys Val	Met Pro Leu Gly Pro
530	535	540
Gly Arg Val Pro	Glu Gly Glu Glu Ala Cys	Gly Glu Ala His Thr
545	550	555
Pro Pro Ala Val	His Ser Asn His Ala Pro	Val Thr Gln Ala Arg
560	565	570
Glu Gly Asn Leu	Pro Leu Leu Ile Ala Pro	Ala Leu Ala Ala Val
575	580	585
Leu Leu Ala Ala	Leu Ala Ala Val Gly Ala	Ala Tyr Cys Val Arg
590	595	600
Arg Gly Arg Ala	Met Ala Ala Ala Ala Gln	Asp Lys Gly Gln Val
605	610	615
Gly Pro Gly Ala	Gly Pro Leu Glu Leu Glu	Gly Val Lys Val Pro
620	625	630
Leu Glu Pro Gly	Pro Lys Ala Thr Glu Gly	Gly Gly Glu Ala Leu
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Pro Ser Gly Ser	Glu Cys Glu Val Pro Leu	Met Gly Phe Pro Gly
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Pro Gly Leu Gln	Ser Pro Leu His Ala Lys	Pro Tyr Ile
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<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
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<210> 55
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
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<210> 56
<211> 3462
<212> DNA
<213> Homo sapiens

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<210> 57
<211> 811
<212> PRT
<213> Homo sapiens

<400> 57
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35 40 45
Leu Thr Pro Ala Thr Thr Thr Leu Asp Leu Ser Tyr Asn Leu Leu
50 55 60
Phe Gln Leu Gln Ser Ser Asp Phe His Ser Val Ser Lys Leu Arg
65 70 75
Val Leu Ile Leu Cys His Asn Arg Ile Gln Gln Leu Asp Leu Lys
80 85 90

Thr Phe Glu Phe	Asn Lys Glu Leu Arg	Tyr Leu Asp Leu Ser	Asn
	95	100	105
Asn Arg Leu Lys	Ser Val Thr Trp Tyr	Leu Leu Ala Gly Leu Arg	
	110	115	120
Tyr Leu Asp Leu	Ser Phe Asn Asp Phe	Asp Thr Met Pro Ile Cys	
	125	130	135
Glu Glu Ala Gly	Asn Met Ser His Leu	Glu Ile Leu Gly Leu Ser	
	140	145	150
Gly Ala Lys Ile	Gln Lys Ser Asp Phe	Gln Lys Ile Ala His Leu	
	155	160	165
His Leu Asn Thr	Val Phe Leu Gly Phe	Arg Thr Leu Pro His Tyr	
	170	175	180
Glu Glu Gly Ser	Leu Pro Ile Leu Asn	Thr Thr Lys Leu His Ile	
	185	190	195
Val Leu Pro Met	Asp Thr Asn Phe Trp	Val Leu Leu Arg Asp Gly	
	200	205	210
Ile Lys Thr Ser	Lys Ile Leu Glu Met	Thr Asn Ile Asp Gly Lys	
	215	220	225
Ser Gln Phe Val	Ser Tyr Glu Met Gln	Arg Asn Leu Ser Leu Glu	
	230	235	240
Asn Ala Lys Thr	Ser Val Leu Leu Leu	Asn Lys Val Asp Leu Leu	
	245	250	255
Trp Asp Asp Leu	Phe Leu Ile Leu Gln	Phe Val Trp His Thr Ser	
	260	265	270
Val Glu His Phe	Gln Ile Arg Asn Val	Thr Phe Gly Gly Lys Ala	
	275	280	285
Tyr Leu Asp His	Asn Ser Phe Asp Tyr	Ser Asn Thr Val Met Arg	
	290	295	300
Thr Ile Lys Leu	Glu His Val His Phe	Arg Val Phe Tyr Ile Gln	
	305	310	315
Gln Asp Lys Ile	Tyr Leu Leu Leu Thr	Lys Met Asp Ile Glu Asn	
	320	325	330
Leu Thr Ile Ser	Asn Ala Gln Met Pro	His Met Leu Phe Pro Asn	
	335	340	345
Tyr Pro Thr Lys	Phe Gln Tyr Leu Asn	Phe Ala Asn Asn Ile Leu	
	350	355	360
Thr Asp Glu Leu	Phe Lys Arg Thr Ile	Gln Leu Pro His Leu Lys	
	365	370	375
Thr Leu Ile Leu	Asn Gly Asn Lys Leu	Glu Thr Leu Ser Leu Val	
	380	385	390
Ser Cys Phe Ala	Asn Asn Thr Pro Leu	Glu His Leu Asp Leu Ser	
	395	400	405

Gln	Asn	Leu	Leu	Gln	His	Lys	Asn	Asp	Glu	Asn	Cys	Ser	Trp	Pro	410	415	420
Glu	Thr	Val	Val	Asn	Met	Asn	Leu	Ser	Tyr	Asn	Lys	Leu	Ser	Asp	425	430	435
Ser	Val	Phe	Arg	Cys	Leu	Pro	Lys	Ser	Ile	Gln	Ile	Leu	Asp	Leu	440	445	450
Asn	Asn	Asn	Gln	Ile	Gln	Thr	Val	Pro	Lys	Glu	Thr	Ile	His	Leu	455	460	465
Met	Ala	Leu	Arg	Glu	Leu	Asn	Ile	Ala	Phe	Asn	Phe	Leu	Thr	Asp	470	475	480
Leu	Pro	Gly	Cys	Ser	His	Phe	Ser	Arg	Leu	Ser	Val	Leu	Asn	Ile	485	490	495
Glu	Met	Asn	Phe	Ile	Leu	Ser	Pro	Ser	Leu	Asp	Phe	Val	Gln	Ser	500	505	510
Cys	Gln	Glu	Val	Lys	Thr	Leu	Asn	Ala	Gly	Arg	Asn	Pro	Phe	Arg	515	520	525
Cys	Thr	Cys	Glu	Leu	Lys	Asn	Phe	Ile	Gln	Leu	Glu	Thr	Tyr	Ser	530	535	540
Glu	Val	Met	Met	Val	Gly	Trp	Ser	Asp	Ser	Tyr	Thr	Cys	Glu	Tyr	545	550	555
Pro	Leu	Asn	Leu	Arg	Gly	Thr	Arg	Leu	Lys	Asp	Val	His	Leu	His	560	565	570
Glu	Leu	Ser	Cys	Asn	Thr	Ala	Leu	Leu	Ile	Val	Thr	Ile	Val	Val	575	580	585
Ile	Met	Leu	Val	Leu	Gly	Leu	Ala	Val	Ala	Phe	Cys	Cys	Leu	His	590	595	600
Phe	Asp	Leu	Pro	Trp	Tyr	Leu	Arg	Met	Leu	Gly	Gln	Cys	Thr	Gln	605	610	615
Thr	Trp	His	Arg	Val	Arg	Lys	Thr	Thr	Gln	Glu	Gln	Leu	Lys	Arg	620	625	630
Asn	Val	Arg	Phe	His	Ala	Phe	Ile	Ser	Tyr	Ser	Glu	His	Asp	Ser	635	640	645
Leu	Trp	Val	Lys	Asn	Glu	Leu	Ile	Pro	Asn	Leu	Glu	Lys	Glu	Asp	650	655	660
Gly	Ser	Ile	Leu	Ile	Cys	Leu	Tyr	Glu	Ser	Tyr	Phe	Asp	Pro	Gly	665	670	675
Lys	Ser	Ile	Ser	Glu	Asn	Ile	Val	Ser	Phe	Ile	Glu	Lys	Ser	Tyr	680	685	690
Lys	Ser	Ile	Phe	Val	Leu	Ser	Pro	Asn	Phe	Val	Gln	Asn	Glu	Trp	695	700	705
Cys	His	Tyr	Glu	Phe	Tyr	Phe	Ala	His	His	Asn	Leu	Phe	His	Glu	710	715	720

Asn	Ser	Asp	His	Ile	Ile	Leu	Ile	Leu	Leu	Glu	Pro	Ile	Pro	Phe
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Tyr	Cys	Ile	Pro	Thr	Arg	Tyr	His	Lys	Leu	Lys	Ala	Leu	Leu	Glu
				740						745				750
Lys	Lys	Ala	Tyr	Leu	Glu	Trp	Pro	Lys	Asp	Arg	Arg	Lys	Cys	Gly
				755						760				765
Leu	Phe	Trp	Ala	Asn	Leu	Arg	Ala	Ala	Ile	Asn	Val	Asn	Val	Leu
				770						775				780
Ala	Thr	Arg	Glu	Met	Tyr	Glu	Leu	Gln	Thr	Phe	Thr	Glu	Leu	Asn
				785						790				795
Glu	Glu	Ser	Arg	Gly	Ser	Thr	Ile	Ser	Leu	Met	Arg	Thr	Asp	Cys
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Leu

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 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 58
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<210> 59
 <211> 27
 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 59
 ttatagacaa tctgtttcga tcagaga 27

<210> 60
 <211> 40
 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

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<210> 61
 <211> 3772
 <212> DNA
 <213> Homo sapiens

<400> 61
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 agcccagccc agcccccgcg gccggtcaca cgcgcagcca gccggccc 200
 tcccgcgccc aagcgcgccc ctctgctgtg cctgcgccc ttgcccccg 250
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 cccaggcgcg ccaagagggc caccaagccc aagaaagctc ccaagagggg 600
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 aaaaaaaaaa aaaaaaaaaa aa 3772

<210> 62
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 62
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 Glu Asp Pro Asp Tyr Tyr Gly Gln Glu Ile Trp Ser Arg Glu Pro 45
 35 40
 Tyr Tyr Ala Arg Pro Glu Pro Glu Leu Glu Thr Phe Ser Pro Pro 60
 50 55
 Leu Pro Ala Gly Pro Gly Glu Glu Trp Glu Arg Arg Pro Gln Glu 75
 65 70
 Pro Arg Pro Pro Lys Arg Ala Thr Lys Pro Lys Lys Ala Pro Lys 90
 80 85
 Arg Glu Lys Ser Ala Pro Glu Pro Pro Pro Pro Gly Lys His Ser 105
 95 100
 Asn Lys Lys Val Met Arg Thr Lys Ser Ser Glu Lys Ala Ala Asn 120
 110 115
 Asp Asp His Ser Val Arg Val Ala Arg Glu Asp Val Arg Glu Ser 135
 125 130
 Cys Pro Pro Leu Gly Leu Glu Thr Leu Lys Ile Thr Asp Phe Gln 150
 140 145
 Leu His Ala Ser Thr Val Lys Arg Tyr Gly Leu Gly Ala His Arg 165
 155 160
 Gly Arg Leu Asn Ile Gln Ala Gly Ile Asn Glu Asn Asp Phe Tyr 180
 170 175
 Asp Gly Ala Trp Cys Ala Gly Arg Asn Asp Leu Gln Gln Trp Ile

	185		190		195
Glu Val Asp Ala	Arg Arg Leu Thr Arg	Phe Thr Gly Val Ile	Thr		
	200		205		210
Gln Gly Arg Asn	Ser Leu Trp Leu Ser	Asp Trp Val Thr Ser	Tyr		
	215		220		225
Lys Val Met Val	Ser Asn Asp Ser His	Thr Trp Val Thr Val	Lys		
	230		235		240
Asn Gly Ser Gly	Asp Met Ile Phe Glu	Gly Asn Ser Glu Lys	Glu		
	245		250		255
Ile Pro Val Leu	Asn Glu Leu Pro Val	Pro Met Val Ala Arg	Tyr		
	260		265		270
Ile Arg Ile Asn	Pro Gln Ser Trp Phe	Asp Asn Gly Ser Ile	Cys		
	275		280		285
Met Arg Met Glu	Ile Leu Gly Cys Pro	Leu Pro Asp Pro Asn	Asn		
	290		295		300
Tyr Tyr His Arg	Arg Asn Glu Met Thr	Thr Thr Asp Asp Leu	Asp		
	305		310		315
Phe Lys His His	Asn Tyr Lys Glu Met	Arg Gln Leu Met Lys	Val		
	320		325		330
Val Asn Glu Met	Cys Pro Asn Ile Thr	Arg Ile Tyr Asn Ile	Gly		
	335		340		345
Lys Ser His Gln	Gly Leu Lys Leu Tyr	Ala Val Glu Ile Ser	Asp		
	350		355		360
His Pro Gly Glu	His Glu Val Gly Glu	Pro Glu Phe His Tyr	Ile		
	365		370		375
Ala Gly Ala His	Gly Asn Glu Val Leu	Gly Arg Glu Leu Leu	Leu		
	380		385		390
Leu Leu Val Gln	Phe Val Cys Gln Glu	Tyr Leu Ala Arg Asn	Ala		
	395		400		405
Arg Ile Val His	Leu Val Glu Glu Thr	Arg Ile His Val Leu	Pro		
	410		415		420
Ser Leu Asn Pro	Asp Gly Tyr Glu Lys	Ala Tyr Glu Gly Gly	Ser		
	425		430		435
Glu Leu Gly Gly	Trp Ser Leu Gly Arg	Thr Thr His Asp Gly	Ile		
	440		445		450
Asp Ile Asn Asn	Asn Phe Pro Asp Leu	Asn Thr Leu Leu Trp	Glu		
	455		460		465
Ala Glu Asp Arg	Gln Asn Val Pro Arg	Lys Val Pro Asn His	Tyr		
	470		475		480
Ile Ala Ile Pro	Glu Trp Phe Leu Ser	Glu Asn Ala Thr Val	Ala		
	485		490		495
Ala Glu Thr Arg	Ala Val Ile Ala Trp	Met Glu Lys Ile Pro	Phe		

500	505	510
Val Leu Gly Gly Asn Leu Gln Gly Gly	Glu Leu Val Val Ala Tyr	
515	520	525
Pro Tyr Asp Leu Val Arg Ser Pro Trp	Lys Thr Gln Glu His Thr	
530	535	540
Pro Thr Pro Asp Asp His Val Phe Arg	Trp Leu Ala Tyr Ser Tyr	
545	550	555
Ala Ser Thr His Arg Leu Met Thr Asp	Ala Arg Arg Arg Val Cys	
560	565	570
His Thr Glu Asp Phe Gln Lys Glu Glu	Gly Thr Val Asn Gly Ala	
575	580	585
Ser Trp His Thr Val Ala Gly Ser Leu	Asn Asp Phe Ser Tyr Leu	
590	595	600
His Thr Asn Cys Phe Glu Leu Ser Ile	Tyr Val Gly Cys Asp Lys	
605	610	615
Tyr Pro His Glu Ser Gln Leu Pro Glu	Glu Trp Glu Asn Asn Arg	
620	625	630
Glu Ser Leu Ile Val Phe Met Glu Gln	Val His Arg Gly Ile Lys	
635	640	645
Gly Leu Val Arg Asp Ser His Gly Lys	Gly Ile Pro Asn Ala Ile	
650	655	660
Ile Ser Val Glu Gly Ile Asn His Asp	Ile Arg Thr Ala Asn Asp	
665	670	675
Gly Asp Tyr Trp Arg Leu Leu Asn Pro	Gly Glu Tyr Val Val Thr	
680	685	690
Ala Lys Ala Glu Gly Phe Thr Ala Ser	Thr Lys Asn Cys Met Val	
695	700	705
Gly Tyr Asp Met Gly Ala Thr Arg Cys	Asp Phe Thr Leu Ser Lys	
710	715	720
Thr Asn Met Ala Arg Ile Arg Glu Ile	Met Glu Lys Phe Gly Lys	
725	730	735
Gln Pro Val Ser Leu Pro Ala Arg Arg	Leu Lys Leu Arg Gly Arg	
740	745	750
Lys Arg Arg Gln Arg Gly		
755		

<210> 63

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 63

gtttctcaatg agctaccgt cccc 24

<210> 64
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 64
cgcgatgtag tgggaactcgg gctc 24

<210> 65
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
atccgcataa accctcagtc ctggtttgat aatgggagca tctgcatgag 50

<210> 66
<211> 2854
<212> DNA
<213> Homo sapiens

<400> 66
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tcttctcttg ccaagctgca ggggatttgg gggatgtggg acctccaatt 100
cccagccccg gcttcagctc tttcccaggt gttgactcca gctccagctt 150
cagctccagc tccaggtcgg gctccagctc cagccgcagc ttaggcagcg 200
gagggttctgt gtcccagttg ttttccaatt tcaccggctc cgtggatgac 250
cgtgggacct gccagtgtct tgtttccctg ccagacacca cctttcccg 300
ggacagagtg gaacgcttgg aattcacagc tcatgttctt tctcagaagt 350
ttgagaaaga actttctaaa gtgagggaat atgtccaatt aattagtgtg 400
tatgaaaaga aactgttaaa cctaactgtc cgaattgaca tcatggagaa 450
ggataccatt tcttacactg aactggactt cgagctgac aaggtagaag 500
tgaaggagat ggaaaaactg gtcatacagc tgaaggagag ttttgggtga 550
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ccccagcaco caaacaagg actgtattgg gtggcgccat tgaatacaga 900

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aaaa 2854

<210> 67
<211> 510
<212> PRT
<213> Homo sapiens

<400> 67
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Gly Gln Ala Ala Gly Asp Leu Gly Asp Val Gly Pro Pro Ile Pro
20 25 30
Ser Pro Gly Phe Ser Ser Phe Pro Gly Val Asp Ser Ser Ser Ser
35 40 45
Phe Ser Ser Ser Ser Arg Ser Gly Ser Ser Ser Ser Arg Ser Leu
50 55 60
Gly Ser Gly Gly Ser Val Ser Gln Leu Phe Ser Asn Phe Thr Gly
65 70 75
Ser Val Asp Asp Arg Gly Thr Cys Gln Cys Ser Val Ser Leu Pro
80 85 90
Asp Thr Thr Phe Pro Val Asp Arg Val Glu Arg Leu Glu Phe Thr
95 100 105
Ala His Val Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val
110 115 120
Arg Glu Tyr Val Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu
125 130 135
Asn Leu Thr Val Arg Ile Asp Ile Met Glu Lys Asp Thr Ile Ser
140 145 150
Tyr Thr Glu Leu Asp Phe Glu Leu Ile Lys Val Glu Val Lys Glu
155 160 165
Met Glu Lys Leu Val Ile Gln Leu Lys Glu Ser Phe Gly Gly Ser
170 175 180
Ser Glu Ile Val Asp Gln Leu Glu Val Glu Ile Arg Asn Met Thr
185 190 195
Leu Leu Val Glu Lys Leu Glu Thr Leu Asp Lys Asn Asn Val Leu
200 205 210

Ala Ile Arg Arg	Glu Ile Val Ala Leu	Lys Thr Lys Leu Lys	Glu
215	220		225
Cys Glu Ala Ser	Lys Asp Gln Asn Thr	Pro Val Val His Pro	Pro
230	235		240
Pro Thr Pro Gly	Ser Cys Gly His Gly	Gly Val Val Asn Ile Ser	
245	250		255
Lys Pro Ser Val	Val Gln Leu Asn Trp	Arg Gly Phe Ser Tyr Leu	
260	265		270
Tyr Gly Ala Trp	Gly Arg Asp Tyr Ser	Pro Gln His Pro Asn Lys	
275	280		285
Gly Leu Tyr Trp	Val Ala Pro Leu Asn	Thr Asp Gly Arg Leu Leu	
290	295		300
Glu Tyr Tyr Arg	Leu Tyr Asn Thr Leu	Asp Asp Leu Leu Leu Tyr	
305	310		315
Ile Asn Ala Arg	Glu Leu Arg Ile Thr	Tyr Gly Gln Gly Ser Gly	
320	325		330
Thr Ala Val Tyr	Asn Asn Asn Met Tyr	Val Asn Met Tyr Asn Thr	
335	340		345
Gly Asn Ile Ala	Arg Val Asn Leu Thr	Thr Asn Thr Ile Ala Val	
350	355		360
Thr Gln Thr Leu	Pro Asn Ala Ala Tyr	Asn Asn Arg Phe Ser Tyr	
365	370		375
Ala Asn Val Ala	Trp Gln Asp Ile Asp	Phe Ala Val Asp Glu Asn	
380	385		390
Gly Leu Trp Val	Ile Tyr Ser Thr Glu	Ala Ser Thr Gly Asn Met	
395	400		405
Val Ile Ser Lys	Leu Asn Asp Thr Thr	Leu Gln Val Leu Asn Thr	
410	415		420
Trp Tyr Thr Lys	Gln Tyr Lys Pro Ser	Ala Ser Asn Ala Phe Met	
425	430		435
Val Cys Gly Val	Leu Tyr Ala Thr Arg	Thr Met Asn Thr Arg Thr	
440	445		450
Glu Glu Ile Phe	Tyr Tyr Tyr Asp Thr	Asn Thr Gly Lys Glu Gly	
455	460		465
Lys Leu Asp Ile	Val Met His Lys Met	Gln Glu Lys Val Gln Ser	
470	475		480
Ile Asn Tyr Asn	Pro Phe Asp Gln Lys	Leu Tyr Val Tyr Asn Asp	
485	490		495
Gly Tyr Leu Leu	Asn Tyr Asp Leu Ser	Val Leu Gln Lys Pro Gln	
500	505		510

<210> 68
 <211> 410
 <212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 206, 217, 387

<223> unknown base

<400> 68

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cttatctata tgggtcttgg ggtagggatt actctcccca gcataccaaa 200
aaaggnatgt attggngggc gccattgaat acagatggga gactgttgga 250
gtattataga ctgtacaacc cactggatga tttgctattg tatataaatg 300
ctcgagagtt gcggtacacc tatggccaag gtagtggtac agcagtttac 350
aacaacaaca tgtactgcaa catgtacaac accgggnata ttgccagagt 400
taacctgacc 410

<210> 69

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 69

agctgtggtc atggtggtgt ggtg 24

<210> 70

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ctacctggc cataggtgat ccgc 24

<210> 71

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

catcagcaaa ccgtctgtgg ttcagctcaa ctggagaggg tt 42

<210> 72

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 72

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tggggctgtg ctccatggcg agctggatac catgtttgtg tggaaagtgcc 150
ccgtgtttgc tatgccgatg ctgtcctagt ggaacaacct ccactgtaac 200
tagattgac tatgcacttt tcttgcttgt tggagtatgt gtagcttgtg 250
taatgttgat accaggaatg gaagaacaac tgaataagat tcctggattt 300
tgtgagaatg agaaagggtg tgtcccttgt aacattttgg ttggctataa 350
agctgtatat cgtttgtgct ttggtttggc tatgttctat cttctctct 400
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cacaatggat tttggttctt taaatttgct gcagcaattg caattattat 500
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agggaaactg agatgttggt atgcagcctt gttatcagct acagctctga 700
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catccagcca gttgttcaga aaacaaggcg ttcacatgct tcaacatgct 800
cctctcggtt ggtgcttctg taatgtctat actgccaaaa atccaagaat 850
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aagatggtg agctagaagt gatggatcac tggaggatgg ggacgatgtt 1200
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ccaactggtc caggtatgaa cctctctgtg agatgaaaag tcagtgagaca 1350
gctgtotggg tgaaaaatct ttcagttgg attggcatcg tgctgtatgt 1400
ttggacaetc gtggcaccac ttgttcttao aaatcgtgat ttgactgag 1450
tgagacttct agcatgaaag toccaatttg attattgctt atttgaaaa 1500
agtattccca acttttgtaa agttgtgtat gtttttgctt cccatgtaac 1550

<210> 73
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 73

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Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Leu	Leu	Cys	Arg	Cys	Cys	Pro
				20					25					30
Ser	Gly	Asn	Asn	Ser	Thr	Val	Thr	Arg	Leu	Ile	Tyr	Ala	Leu	Phe
				35					40					45
Leu	Leu	Val	Gly	Val	Cys	Val	Ala	Cys	Val	Met	Leu	Ile	Pro	Gly
				50					55					60
Met	Glu	Glu	Gln	Leu	Asn	Lys	Ile	Pro	Gly	Phe	Cys	Glu	Asn	Glu
				65					70					75
Lys	Gly	Val	Val	Pro	Cys	Asn	Ile	Leu	Val	Gly	Tyr	Lys	Ala	Val
				80					85					90
Tyr	Arg	Leu	Cys	Phe	Gly	Leu	Ala	Met	Phe	Tyr	Leu	Leu	Leu	Ser
				95					100					105
Leu	Leu	Met	Ile	Lys	Val	Lys	Ser	Ser	Ser	Asp	Pro	Arg	Ala	Ala
				110					115					120
Val	His	Asn	Gly	Phe	Trp	Phe	Phe	Lys	Phe	Ala	Ala	Ala	Ile	Ala
				125					130					135
Ile	Ile	Ile	Gly	Ala	Phe	Phe	Ile	Pro	Glu	Gly	Thr	Phe	Thr	Thr
				140					145					150
Val	Trp	Phe	Tyr	Val	Gly	Met	Ala	Gly	Ala	Phe	Cys	Phe	Ile	Leu
				155					160					165
Ile	Gln	Leu	Val	Leu	Leu	Ile	Asp	Phe	Ala	His	Ser	Trp	Asn	Glu
				170					175					180
Ser	Trp	Val	Glu	Lys	Met	Glu	Glu	Gly	Asn	Ser	Arg	Cys	Trp	Tyr
				185					190					195
Ala	Ala	Leu	Leu	Ser	Ala	Thr	Ala	Leu	Asn	Tyr	Leu	Leu	Ser	Leu
				200					205					210
Val	Ala	Ile	Val	Leu	Phe	Phe	Val	Tyr	Tyr	Thr	His	Pro	Ala	Ser
				215					220					225
Cys	Ser	Glu	Asn	Lys	Ala	Phe	Ile	Ser	Val	Asn	Met	Leu	Leu	Cys
				230					235					240
Val	Gly	Ala	Ser	Val	Met	Ser	Ile	Leu	Pro	Lys	Ile	Gln	Glu	Ser
				245					250					255
Gln	Pro	Arg	Ser	Gly	Leu	Leu	Gln	Ser	Ser	Val	Ile	Thr	Val	Tyr
				260					265					270
Thr	Met	Tyr	Leu	Thr	Trp	Ser	Ala	Met	Thr	Asn	Glu	Pro	Glu	Thr
				275					280					285

Asn Cys Asn Pro	Ser Leu Leu Ser Ile	Ile Gly Tyr Asn Thr	Thr
290	295	300	
Ser Thr Val Pro	Lys Glu Gly Gln Ser	Val Gln Trp Trp His	Ala
305	310	315	
Gln Gly Ile Ile	Gly Leu Ile Leu Phe	Leu Leu Cys Val Phe	Tyr
320	325	330	
Ser Ser Ile Arg	Thr Ser Asn Asn Ser	Gln Val Asn Lys Leu	Thr
335	340	345	
Leu Thr Ser Asp	Glu Ser Thr Leu Ile	Glu Asp Gly Gly Ala	Arg
350	355	360	
Ser Asp Gly Ser	Leu Glu Asp Gly Asp	Asp Val His Arg Ala	Val
365	370	375	
Asp Asn Glu Arg	Asp Gly Val Thr Tyr	Ser Tyr Ser Phe Phe	His
380	385	390	
Phe Met Leu Phe	Leu Ala Ser Leu Tyr	Ile Met Met Thr Leu	Thr
395	400	405	
Asn Trp Ser Arg	Tyr Glu Pro Ser Arg	Glu Met Lys Ser Gln	Trp
410	415	420	
Thr Ala Val Trp	Val Lys Ile Ser Ser	Ser Trp Ile Gly Ile	Val
425	430	435	
Leu Tyr Val Trp	Thr Leu Val Ala Pro	Leu Val Leu Thr Asn	Arg
440	445	450	
Asp Phe Asp			

<210> 74
 <211> 480
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 48, 163
 <223> unknown base

<400> 74
 gcgagaaaga agctgtctcc atcttgtctg tatcccgctg cttcttngna 50
 cgttgtggag atggggagcg tccctggggc tgtgctccat ggcgagctgg 100
 ataccatggt tgtgtggaag tgcccgtgt ttgctatgcc gatgctgtcc 150
 tagtggaaac aantccactg taactagatt gatctatgca cttttcttgc 200
 ttgttgagat atgtgtagct tgtgtaatgt tgataccagg aatggaagaa 250
 caactgaata agattcctgg attttgtgag aatgagaaag gtgttgtccc 300
 ttgtaacatt ttggttggtc ataaagctgt atatcgtttg tgctttgttt 350
 tggctatggt ctatctctct ctctctttac taatgatcaa agtgaagagt 400

agcagtgatc ctagagctgc agtcacaaat ggattttggt tctttaaatt 450
tgctgcagca attgcaatta ttattggggc 480

<210> 75
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 32, 65, 92, 121, 142, 154, 170, 293, 315, 323
<223> unknown base

<400> 75
gttattgtga actttgtgga gatgggaggt cntggggctg tgttccatgg 50
cgagctggat accangtttg tgtggaagtg ccccggtgtt gntatgccga 100
tgctgtccta gtggaacaa ntccactgta attagattga tntatgcact 150
ttntttgctt gttggagtan gtgtagcttg tgtaatgttg ataccaggaa 200
tggaagaaca actgaataag attcctggat tttgtgagaa tgagaaaggt 250
gttgtccctt gtaacatttt ggttggtctat aaagctgtat atngtttgtg 300
ctttggtttg gctangttct atnttcttct ctctttacta atgatcaaag 350
tgaagagtag cagtgatcct agagctgcag tgcacaatgg attttgggtt 400
tttaaatttg ctgcagcaat tgcaattatt attggggc 438

<210> 76
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 48
<223> unknown base

<400> 76
aagaagctgt ctccatcttg tctgtatccg ctgctcttgt gaaagtnttg 50
gagatgggga gcgtcccttg ggttggtctc catggcgagc tggataccat 100
gtttgtgtgg aagtgccccg tgtttgctat gccgatgctg tcctagtggg 150
aacaactcca ctgtaactag attgatctat gcacttttct tgctgtgttg 200
agtatgtgta gcttggtgaa tgttgatacc aggaatggaa gaacaactga 250
ataaagtatc tggattttgt gagaatgaga aaggtgttgt cccttgtaac 300
attttggttg gctataaagc tgtatatcgt ttgtgctttg gtttggtctat 350
gttctatctt ctctctctct tactaatgat caaagtgaag agtagcagtg 400
atcctagagc tgcagtgcac aatggatttt ggttctttaa atttgctgca 450
gcaattgcaa ttattattgg ggc 473

<210> 77
<211> 666
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 21, 111
<223> unknown base

<400> 77
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actttttcct tgcttggtgg agtatgtgta gctttgtgta atgttggtcc 100
caggatttga ngaacaactg aataagattc ctggattttt gtgagaatga 150
gaaagggtgt gtccccctgt aacatttttg gttgggtata aagctgtata 200
tcgtttgtgc tttggtttgg ctatgttota tcttcttoto tctttactaa 250
tgatcaaagt gaagagtagc agtgatccta gagctgcagt gcacaatgga 300
ttttggttct ttaaatttgc tgcagcaatt gcaattatta ttggggcatt 350
cttcattcca gaaggaactt ttacaactgt gtggttttat gtaggcatgg 400
cagggtgcctt ttgtttcatc ctcatacaac tagtcttact tattgatatt 450
gcacattcat ggaatgaatc gtgggttgaa aaaatggaag aagggaactc 500
gagatgttgg tatgcagcct tgttatoagc tacagctctg aattatctgc 550
tgtctttagt tgctatcgtc ctgttctttg tctactacac tcatccagcc 600
agttgttcag aaaacaagc gttcatcagt gtcaacatgc tcctctgcgt 650
tggtgcttct gtaatg 666

<210> 78
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 78
atgtttgtgt ggaagtgtcc cg 22

<210> 79
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
gtcaacatgc tcctctgc 18

<210> 80
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
aatccattgt gcaactgcagc tctagg 26

<210> 81
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
gagcatgccca ccaactggact gac 23

<210> 82
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 82
gccgagtctg tcttagtgga aacaactcca ctgtaactag attgatctat 50
gcac 54

<210> 83
<211> 3906
<212> DNA
<213> Homo sapiens

<400> 83
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gcggccggcg ccggcctctc caatggcaaa tgtgtgtggc tggaggcgag 100
cgcgaggctt tcggcaaagg cagtcgagtg ttgcagacc gggcgagtc 150
ctgtgaaagc agataaaaga aaacatttat taacgtgtca ttacgagggg 200
agcgcccgcg cggggctgtc gcaactcccc cggaacattt ggctccctcc 250
agctccgaga gaggagaaga agaaagcgga aaagaggcag attcacgtcg 300
tttcagcca agtggacctg atcgatggcc ctctgaatt tatcacgata 350
tttgatttat tagcgatgcc cctggtttg tgtgttacgc acacacacgt 400
gcacacaagg ctctggctcg cttccctccc tcgtttccag ctccgtggcg 450
aatcccacat ctgtttcaac tctccgcgga gggcgagcag gaggcagagt 500
gtgtcgaatc tgcgagtga gagggcagag ggaagagaaa caaagccaca 550
gacgcaactt gagactcccc catccccaaa gaagcaccag atcagcaaaa 600

aaagaagatg ggcccccca gcctcgtgct gtgcttgctg tccgcaactg 650
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 aagaagcagg acagaggcaa cgtggagagg ctgaaaaacg tgcagagacg 3700
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 aaacctggtt tgctctgaa gaaactgcct tcattgtata tatgtgacta 3800

tttacatgta atcaacatgg gaacttttag gggaacctaa taagaaatcc 3850
 caattttcag gagtgggtgt gtcaataaac gctctgtggc cagtgtaaaa 3900
 gaaaaa 3906

<210> 84
 <211> 867
 <212> PRT
 <213> Homo sapiens

<400> 84
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 Phe Ser Leu Leu Gly Gly Ser Ser Ala Phe Leu Ser His His Arg
 20 25 30
 Leu Lys Gly Arg Phe Gln Arg Asp Arg Arg Asn Ile Arg Pro Asn
 35 40 45
 Ile Ile Leu Val Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser
 50 55 60
 Met Gln Val Met Asn Lys Thr Arg Arg Ile Met Glu Gln Gly Gly
 65 70 75
 Ala His Phe Ile Asn Ala Phe Val Thr Thr Pro Met Cys Cys Pro
 80 85 90
 Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His Asn His Asn
 95 100 105
 Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp Gln Ala
 110 115 120
 Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr Gly
 125 130 135
 Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
 140 145 150
 Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys
 155 160 165
 Asn Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys
 170 175 180
 Glu Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu
 185 190 195
 Ile Thr Asn Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met
 200 205 210
 Tyr Pro His Arg Pro Val Leu Met Val Ile Ser His Ala Ala Pro
 215 220 225
 His Gly Pro Glu Asp Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro
 230 235 240
 Asn Ala Ser Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn
 245 250 255

Pro Asp Lys His	Trp Ile Met Arg Tyr	Thr Gly Pro Met Lys Pro
260		265 270
Ile His Met Glu	Phe Thr Asn Met Leu	Gln Arg Lys Arg Leu Gln
275		280 285
Thr Leu Met Ser	Val Asp Asp Ser Met	Glu Thr Ile Tyr Asn Met
290		295 300
Leu Val Glu Thr	Gly Glu Leu Asp Asn	Thr Tyr Ile Val Tyr Thr
305		310 315
Ala Asp His Gly	Tyr His Ile Gly Gln	Phe Gly Leu Val Lys Gly
320		325 330
Lys Ser Met Pro	Tyr Glu Phe Asp Ile	Arg Val Pro Phe Tyr Val
335		340 345
Arg Gly Pro Asn	Val Glu Ala Gly Cys	Leu Asn Pro His Ile Val
350		355 360
Leu Asn Ile Asp	Leu Ala Pro Thr Ile	Leu Asp Ile Ala Gly Leu
365		370 375
Asp Ile Pro Ala	Asp Met Asp Gly Lys	Ser Ile Leu Lys Leu Leu
380		385 390
Asp Thr Glu Arg	Pro Val Asn Arg Phe	His Leu Lys Lys Lys Met
395		400 405
Arg Val Trp Arg	Asp Ser Phe Leu Val	Glu Arg Gly Lys Leu Leu
410		415 420
His Lys Arg Asp	Asn Asp Lys Val Asp	Ala Gln Glu Glu Asn Phe
425		430 435
Leu Pro Lys Tyr	Gln Arg Val Lys Asp	Leu Cys Gln Arg Ala Glu
440		445 450
Tyr Gln Thr Ala	Cys Glu Gln Leu Gly	Gln Lys Trp Gln Cys Val
455		460 465
Glu Asp Ala Thr	Gly Lys Leu Lys Leu	His Lys Cys Lys Gly Pro
470		475 480
Met Arg Leu Gly	Gly Ser Arg Ala Leu	Ser Asn Leu Val Pro Lys
485		490 495
Tyr Tyr Gly Gln	Gly Ser Glu Ala Cys	Thr Cys Asp Ser Gly Asp
500		505 510
Tyr Lys Leu Ser	Leu Ala Gly Arg Arg	Lys Lys Leu Phe Lys Lys
515		520 525
Lys Tyr Lys Ala	Ser Tyr Val Arg Ser	Arg Ser Ile Arg Ser Val
530		535 540
Ala Ile Glu Val	Asp Gly Arg Val Tyr	His Val Gly Leu Gly Asp
545		550 555
Ala Ala Gln Pro	Arg Asn Leu Thr Lys	Arg His Trp Pro Gly Ala
560		565 570

Pro	Glu	Asp	Gln	Asp	Asp	Lys	Asp	Gly	Gly	Asp	Phe	Ser	Gly	Thr	575	580	585
Gly	Gly	Leu	Pro	Asp	Tyr	Ser	Ala	Ala	Asn	Pro	Ile	Lys	Val	Thr	590	595	600
His	Arg	Cys	Tyr	Ile	Leu	Glu	Asn	Asp	Thr	Val	Gln	Cys	Asp	Leu	605	610	615
Asp	Leu	Tyr	Lys	Ser	Leu	Gln	Ala	Trp	Lys	Asp	His	Lys	Leu	His	620	625	630
Ile	Asp	His	Glu	Ile	Glu	Thr	Leu	Gln	Asn	Lys	Ile	Lys	Asn	Leu	635	640	645
Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Lys	Lys	Arg	Pro	Glu	Glu	Cys	650	655	660
Asp	Cys	His	Lys	Ile	Ser	Tyr	His	Thr	Gln	His	Lys	Gly	Arg	Leu	665	670	675
Lys	His	Arg	Gly	Ser	Ser	Leu	His	Pro	Phe	Arg	Lys	Gly	Leu	Gln	680	685	690
Glu	Lys	Asp	Lys	Val	Trp	Leu	Leu	Arg	Glu	Gln	Lys	Arg	Lys	Lys	695	700	705
Lys	Leu	Arg	Lys	Leu	Leu	Lys	Arg	Leu	Gln	Asn	Asn	Asp	Thr	Cys	710	715	720
Ser	Met	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Gln	His	Trp	725	730	735
Gln	Thr	Ala	Pro	Phe	Trp	Thr	Leu	Gly	Pro	Phe	Cys	Ala	Cys	Thr	740	745	750
Ser	Ala	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Met	Arg	Thr	Ile	Asn	Glu	755	760	765
Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu	770	775	780
Tyr	Phe	Asp	Leu	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Met	Asn	Ala	Val	785	790	795
Asn	Thr	Leu	Asp	Arg	Asp	Val	Leu	Asn	Gln	Leu	His	Val	Gln	Leu	800	805	810
Met	Glu	Leu	Arg	Ser	Cys	Lys	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg	815	820	825
Thr	Arg	Asn	Met	Asp	Leu	Asp	Gly	Gly	Ser	Tyr	Glu	Gln	Tyr	Arg	830	835	840
Gln	Phe	Gln	Arg	Arg	Lys	Trp	Pro	Glu	Met	Lys	Arg	Pro	Ser	Ser	845	850	855
Lys	Ser	Leu	Gly	Gln	Leu	Trp	Glu	Gly	Glu	Gly	Trp	Glu	Gly		860	865	

<210> 85

<211> 19

<212> DNA

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<223> Synthetic oligonucleotide probe

gaagccggct gtctgaatc 19

<211> 18

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

ggccagctat ctccgcag 18

<211> 18

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

aagggcctgc aaqaaag 18

<211> 18

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

cactgggaca actgtggg 18

<211> 18

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

cagaggcaac gtggagag 18

<211> 21

<213> Artificial Sequence

<223> Synthetic oligonucleotide probe

aagtattgtc atacagtgtt c 21

<210> 91
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 91
tagtacttgg gcacgaggtt ggag 24

<210> 92
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
tcataccaac tgctggctcat tggc 24

<210> 93
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
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<210> 94
<211> 971
<212> DNA
<213> Homo sapiens

<400> 94
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accaccacca cccccaccgc caccatcccc gccacgtcgt ctgaggctgc 450
tgtgcgggtt gcctgtggac agcagctgcc cctgcccctcc catctgttcc 500
caggacaagt ggaccccatg tttccatgtg gaaggatgca tctctggggt 550
gaacgagggg aacaatagac tggggcttgc tccagctgca tttgcatggc 600

atgccccagt gtactatggc agcagagaat ggaggaacac tgggtctgca 650
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 acagcccgtc ttgtgacagt gactcccagt gagccccaga aatgacaagc 750
 gtgtcttggc agagccagca cacaagtgga tgtgaagtgc cgtcttgac 800
 ctctcatca ggctctgca ggcctctggc gggcagggca ctgggagagg 850
 ccctgagaat gtcccttttg tttggagaag gcagtgtgag gctgcacagt 900
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 aaaaaaaaaa aaaaaaaaaa a 971

<210> 95
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 95
 Met Leu Gly Leu Leu Gly Ser Thr Ala Leu Val Gly Trp Ile Thr
 1 5 10 15
 Gly Ala Ala Val Ala Val Leu Leu Leu Leu Leu Leu Ala Thr
 20 25 30
 Cys Leu Phe His Gly Arg Gln Asp Cys Asp Val Glu Arg Asn Arg
 35 40 45
 Thr Ala Ala Gly Gly Asn Arg Val Arg Arg Ala Gln Pro Trp Pro
 50 55 60
 Phe Arg Arg Arg Gly His Leu Gly Ile Phe His His His Arg His
 65 70 75
 Pro Gly His Val Ser His Val Pro Asn Val Gly Leu His His His
 80 85 90
 His His Pro Arg His Thr Pro His His Leu His His His His His
 95 100 105
 Pro His Arg His His Pro Arg His Ala Arg
 110 115

<210> 96
 <211> 1312
 <212> DNA
 <213> Homo sapiens

<400> 96
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 gctgaogctg ctggcctttg ccgggtactc agggctactg gctggggctg 150
 aagtgaagtgc tgggtcacc cccatccgca acgtcactgt ggccataaag 200
 ttccacatgg ggctctatgg tgagactggg cggtctttca ctgagagctg 250
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 gggagtcacg gctggacctt gggactgagc cctgggggac taccaagtgg 950
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 caacctctcg cagtgcagtt gctgaggaaac tgagcagact ctccagcaga 1050
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 ctttaggtc ccagggccag aggagccagg gactatttct tgcaccagcc 1200
 cccagggtcg ccgcccctgt tgtgtctttt ttccagactc acagtggagc 1250
 ttccaggacc cagaataaag ccaatgattt acttgtttca cctggaaaaa 1300
 aaaaaaaaaa aa 1312

<210> 97
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 97
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 35 40 45
 Val Thr Val Ala Tyr Lys Phe His Met Gly Leu Tyr Gly Glu Thr
 50 55 60
 Gly Arg Leu Phe Thr Glu Ser Cys Ser Ile Ser Pro Lys Leu Arg
 65 70 75

Ser Ile Ala Val Tyr Tyr Asp Asn Pro His Met Val Pro Pro Asp
80 85 90

Lys Cys Arg Cys Ala Val Gly Ser Ile Leu Ser Glu Gly Glu Glu
95 100 105

Ser Pro Ser Pro Glu Leu Ile Asp Leu Tyr Gln Lys Phe Gly Phe
110 115 120

Lys Val Phe Ser Phe Pro Ala Pro Ser His Val Val Thr Ala Thr
125 130 135

Phe Pro Tyr Thr Thr Ile Leu Ser Ile Trp Leu Ala Thr Arg Arg
140 145 150

Val His Pro Ala Leu Asp Thr Tyr Ile Lys Glu Arg Lys Leu Cys
155 160 165

Ala Tyr Pro Arg Leu Glu Ile Tyr Gln Glu Asp Gln Ile His Phe
170 175 180

Met Cys Pro Leu Ala Arg Gln Gly Asp Phe Tyr Val Pro Glu Met
185 190 195

Lys Glu Thr Glu Trp Lys Trp Arg Gly Leu Val Glu Ala Ile Asp
200 205 210

Thr Gln Val Asp Gly Thr Gly Ala Asp Thr Met Ser Asp Thr Ser
215 220 225

Ser Val Ser Leu Glu Val Ser Pro Gly Ser Arg Glu Thr Ser Ala
230 235 240

Ala Thr Leu Ser Pro Gly Ala Ser Ser Arg Gly Trp Asp Asp Gly
245 250 255

Asp Thr Arg Ser Glu His Ser Tyr Ser Glu Ser Gly Ala Ser Gly
260 265 270

Ser Ser Phe Glu Glu Leu Asp Leu Glu Gly Glu Gly Pro Leu Gly
275 280 285

Glu Ser Arg Leu Asp Pro Gly Thr Glu Pro Leu Gly Thr Thr Lys
290 295 300

Trp Leu Trp Glu Pro Thr Ala Pro Glu Lys Gly Lys Glu
305 310

<210> 98
<211> 725
<212> DNA
<213> Homo sapiens

<400> 98
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ccccggtcc ctgccccgcg ccagtcacg accctgcgcc cctcaactct 100
cccgtccat ctgctgtgct tgctgtgtgt cagtgcggcg gtgtgccggg 150
ctgaggctgg gctcgaacc gaaagtccg tccggaccct ccaagtggag 200
accctggtgg agccccaga accatgtgcc gagcccgctg cttttggaga 250

cacgcttcac atacactaca cggaagcctt gtagatgga cgtattattg 300
 acacctccct gaccagagac cctctggtta tagaacttg ccaaaagcag 350
 gtgattccag gtctggagca gagtctctc gacatgtgtg tgggagagaa 400
 gcgaaggcca atcattcctt ctcaactggc ctatgaaaa cggggatttc 450
 caccatctgt ccagcggtat gcagtgtgtc agtatgacgt ggagctgatt 500
 gcactaatcc gagccaacta ctggctaag ctggtgaagg gcattttgcc 550
 tctggtaggg atggccatgg tgccagccct cctgggcctc attgggtatc 600
 acctatacag aaagccaat agaccaaaag tctccaaaaa gaagctcaag 650
 gaagagaaac gaaacaagag caaaaagaaa taataaataa taaattttaa 700
 aaaacttaaa aaaaaaaaaa aaaaa 725

<210> 99
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 99
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 Leu Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu
 20 25 30
 Thr Glu Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu
 35 40 45
 Pro Pro Glu Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu
 50 55 60
 His Ile His Tyr Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp
 65 70 75
 Thr Ser Leu Thr Arg Asp Pro Leu Val Ile Glu Leu Gly Gln Lys
 80 85 90
 Gln Val Ile Pro Gly Leu Glu Gln Ser Leu Leu Asp Met Cys Val
 95 100 105
 Gly Glu Lys Arg Arg Ala Ile Ile Pro Ser His Leu Ala Tyr Gly
 110 115 120
 Lys Arg Gly Phe Pro Pro Ser Val Pro Ala Asp Ala Val Val Gln
 125 130 135
 Tyr Asp Val Glu Leu Ile Ala Leu Ile Arg Ala Asn Tyr Trp Leu
 140 145 150
 Lys Leu Val Lys Gly Ile Leu Pro Leu Val Gly Met Ala Met Val
 155 160 165
 Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu Tyr Arg Lys Ala
 170 175 180
 Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu Glu Lys Arg

Asn Lys Ser Lys Lys Lys
200

<210> 100
<211> 705
<212> DNA
<213> Homo sapiens

<400> 100
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ccgggtccct gccccgcgcc cagtcctgac cctgcgcccc tcaactcctcc 100
cgctccatct gctgctgctg ctgctgctca gtgcggcggt gtgcggggct 150
gaggctgggc tcgaaaccga aagtcccgtc cggaccctcc aagtggagac 200
cctggtggag cccccagaac catgtgccga gcccgctgct tttggagaca 250
cgcttcacat aactacacg ggaagcttgg tagatggacg tattattgac 300
acctccctga ccagagaccc tctggttata gaacttggcc aaaagcaggt 350
gattccaggt ctggagcaga gtcttctcga catgtgtgtg ggagagaagc 400
gaagggaat cattccttct cacttggcct atggaaaacg gggatttcca 450
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actaatccga gcccaactact ggctaaagct ggtgaagggc attttgcctc 550
tggtagggat ggccatgggt ccaccctcct gggcctcatt gggatcaccc 600
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gagaaacgaa acaagagcaa aaagaaataa taaataataa attttaaaaa 700
actta 705

<210> 101
<211> 543
<212> DNA
<213> Homo sapiens

<400> 101
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gaaccatgtg ccgagcccg tgcttttga gacacgctc acatacacta 100
cacgggaagc ttggtagatg gacgtattat tgacacctcc ctgaccagag 150
accctctggt tatagaactt ggccaaaagc aggtgattcc aggtctggag 200
cagagtcttc tcgacatgtg tgtgggagag aagcgaaggc caatcattcc 250
ttctcacttg gcctatggaa aacggggatt tccaccatct gtcccagcgg 300
atgcagtggt gcagtatgac gtggagctga ttgcactaat ccgagccaac 350
tactggctaa agctggtgaa gggcattttg cctctggtag ggatggccat 400

gggtgccagcc ctctctgggcc tcattgggta tcacctatac agaaaggcca 450
 atagacccaa agtctccaaa aagaagctca aggaagagaa acgaaacaag 500
 agcaaaaaga aataataaat aataaat ttt aaaaaactta aaa 543

<210> 102
 <211> 1316
 <212> DNA
 <213> Homo sapiens

<400> 102
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 aaatcggggg agtgaggcgg gccggcgagg cgcgacacgg ggctccggaa 100
 ccactgcacg acgggggctgg actgacctga aaaaaatgtc tggatttcta 150
 gaggggcttga gatgctcaga atgcattgac tggggggaaa agcgaatac 200
 tattgcttcc attgctgctg gtgtactatt ttttacaggc tgggtggatta 250
 tcatagatgc agctgttatt tatccacca tgaaagattt caaccactca 300
 taccatgect gtgtgtttat agcaaccata gccttcctaa tgattaatgc 350
 agtatcgaat ggacaagtcc gaggtgatag ttacagttaa ggttgtctgg 400
 gtcaaacagg tgctgcatt tggcttttgc ttggtttcat gttggccttt 450
 ggatctctga ttgcatctat gtggattctt ttggagggtt atgttgctaa 500
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 taacttataa aatgttagag gaaactttca catgaataat ttttgtcaa 850
 ttttatcatg gtataatttg taaaaataaa aagaaattac aaaagaaatt 900
 atggatttgt caatgtaagt atttgtcata tctgaggctc aaaccacaa 950
 tgaaagtgtc ctgaagattt aatgtgttta ttcaaatgtg gtctcttctg 1000
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<210> 103

<211> 157

<212> PRT

<213> Homo sapiens

<400> 103

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Trp	Gly	Glu	Lys	Arg	Asn	Thr	Ile	Ala	Ser	Ile	Ala	Ala	Gly	Val
				20					25				30	
Leu	Phe	Phe	Thr	Gly	Trp	Trp	Ile	Ile	Ile	Asp	Ala	Ala	Val	Ile
				35					40				45	
Tyr	Pro	Thr	Met	Lys	Asp	Phe	Asn	His	Ser	Tyr	His	Ala	Cys	Gly
				50					55				60	
Val	Ile	Ala	Thr	Ile	Ala	Phe	Leu	Met	Ile	Asn	Ala	Val	Ser	Asn
				65					70				75	
Gly	Gln	Val	Arg	Gly	Asp	Ser	Tyr	Ser	Glu	Gly	Cys	Leu	Gly	Gln
				80					85				90	
Thr	Gly	Ala	Arg	Ile	Trp	Leu	Phe	Val	Gly	Phe	Met	Leu	Ala	Phe
				95					100				105	
Gly	Ser	Leu	Ile	Ala	Ser	Met	Trp	Ile	Leu	Phe	Gly	Gly	Tyr	Val
				110					115				120	
Ala	Lys	Glu	Lys	Asp	Ile	Val	Tyr	Pro	Gly	Ile	Ala	Val	Phe	Phe
				125					130				135	
Gln	Asn	Ala	Phe	Ile	Phe	Phe	Gly	Gly	Leu	Val	Phe	Lys	Phe	Gly
				140					145				150	
Arg	Thr	Glu	Asp	Leu	Trp	Gln								
				155										

<210> 104

<211> 545

<212> DNA

<213> Homo sapiens

<400> 104

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agcgcaatac tattgcttcc attgctgctg gtgtactatt ttttacaggc 200
tggtggatta tcatagatgc agctgttatt tatccaccca tgaaagattt 250
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tgattaatgc agtatcgaat ggacaagtcc gaggtgatag ttacagttaa 350
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gttggccttt ggtatcttga ttgcatctat gtggattctt tttggagggt 450
 atgttgctaa agaaaaagac atagtatacc ctggaattgc tgtatttttc 500
 cagaatgcct tcattctttt tggagggctg gtttttaagt ttggc 545

<210> 105
 <211> 490
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 31, 39, 108, 145, 179, 219, 412, 479
 <223> unknown base

<400> 105
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 tgggtgnta ttttttacag gctgggtgat tatcatagat gcagntgtta 150
 tttatccac catgaaagat ttcaaccant cataccatgc ctgtggtgtt 200
 atagcaacca tagccttctt aatgattaat gcagtatoga atggacaagt 250
 ccgaggtgat agttacagt aaggttggtt gggtaaaaca ggtgctcgca 300
 tttggctttt cgttgggttc atgttggtt ttggatctct gattgcatct 350
 atgtggattc tttttggagg ttatgttgct aaagaaaaag acatagtata 400
 ccctggaatt gntgtatttt tccagaatgc cttcatcttt tttggagggc 450
 tggtttttaa gtttggcgc actgaagant tatggcagtg 490

<210> 106
 <211> 466
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 26, 38, 81, 115, 207, 329, 380, 446, 449
 <223> unknown base

<400> 106
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 aatgtttgga ttttttagagg gcttgagatg ntcagaatgc attgactggg 100
 ggaaaagcgc aatantattg ctttccattg ctgctggtgt actatttttt 150
 acagggtggt ggattatcat agatgcagct gttatttacc ccaccatgaa 200
 agatttnaac cactcatacc atgcctgtgg tgttatagca accatagcct 250
 tcctaatgat taatgcagta tcgaatggac aagtcggagg tgatagttac 300
 agtgaaggtt gtttgggtca aacaggtgnt cgcatttggc ttttcgttgg 350
 ttctatgttg gcctttggat ttctgattgn attctatgcg gattcttttt 400

ggagggttatg ttgctaaaga aaaagacata gtataccctg gaatttctnt 450
atttttccag aatgcc 466

<210> 107
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 52, 67, 70, 78, 105, 144, 150, 209, 266, 268, 282, 310, 331, 356
<223> unknown base

<400> 107
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antattgctt ccattgntgn tgggtgnta tttttttaca ggctggtgga 100
ttatnataga tgcagctgtt atttatccca ccatgaaaga tttnaaccan 150
tcataccatg cctgtggtgt tatagcaacc atagccttcc taatgattaa 200
tgcagtatng aatggacaag tccgaggtga tagttacagt gaaggttggt 250
tgggtcaaac aggtgntngc atttggcttt tngttgggtt catgttggtc 300
tttgatctn tgattgcatt tatgtggatt ntttttggtg gttatgttgc 350
taaagnaaaa gacatagtat accctgt 377

<210> 108
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 12, 25, 65, 130, 437, 537
<223> unknown base

<400> 108
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ggactgacct gaaaaaatg tttggatttn tagagggtct gagatgctca 150
gaatgcattg actgggggga aaagcgcaat actattgctt ccattgctgc 200
tgggtgacta ttttttacag gctggtggat tatcatagat gcagctgtta 250
tttatccac catgaaagat ttcaaccact cataccatgc ctgtggtgtt 300
atagcaacca tagccttct aatgattaat gcagtatcga atggacaagt 350
ccgaggtgat agttacagt aaggttgtct gggtaaaca ggtgctcgca 400
tttggctttt cgttggtttc atgttggtct ttggtatnct gattgcact 450
atgtggattc tttttggagg ttatgttgct aaagaaaaag acatagtata 500
ccctggaatt gctgtatttt tocagaatgc ottcatnttt tttggagggc 550

099966-11501

95

ctcaaggaga agtttcacac ggaggaagct atcattgaca agtatataaa 600
 gtggttaag gtggtatcca gtggagcccc tcatgccatc ctgttgaaat 650
 tcctcccatc gcccggtgtt cagctcctcg acaggtgtgg gctgctgact 700
 cgtttctctc cattccttca agcatccacc cagagcctgg ctgaggtcct 750
 gcagcagctg ggggcctcct ctgagctcca ggcagttact agctacatct 800
 tccccactta cgggtgcacc cccaaccaca gtgccttttc catgcacgcc 850
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 gccctgtgt gcagcagcgc catcctgaag cggaacttgt actcagacct 1800
 taagaatctt gattctagga tccgggcaca gaagaaaaag aattagtccc 1850
 atcaggagg agtcagagga atttgcocaa tggctggggc atctccottg 1900
 acttaccocat aatgtcttcc tgcattagt ccttgacgt ataaagcact 1950
 ctaatttgg tctgatcct gaagagaggc ctagttaaa tcacaattcc 2000
 gaatctggg caatggaatc actgcttcca gctggggcag gtgagatctt 2050
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 cttcagggga caggaaatgc ctgtgtcttg ccagtgtggt tctggagctt 2450
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 aagccttata caccaaatac acagggaagg gtgatgcagg gaagggtgac 2650
 atcaggagtc agggcatgga ctggttaagt gaatactttg ctgggctgaa 2700
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 atgtgtgtga agcccagaaa tggcatttgc agttaattag cacatgtgag 2850
 ggttagacag gtaggatgaat gcaagctcaa ggtttggaaa aatgactttt 2900
 cagttatgtc ttgtgtatca gacatacgaa aggtctcttt gtatgtcgtg 2950
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 aaaa 3004

<210> 113
 <211> 610
 <212> PRT
 <213> Homo sapiens

<400> 113
 Met Trp Leu Pro Leu Val Leu Leu Leu Ala Val Leu Leu Leu Ala
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 Val Leu Cys Lys Val Tyr Leu Gly Leu Phe Ser Gly Ser Ser Pro
 20 25 30
 Asn Pro Phe Ser Glu Asp Val Lys Arg Pro Pro Ala Pro Leu Val
 35 40 45
 Thr Asp Lys Glu Ala Arg Lys Lys Val Leu Lys Gln Ala Phe Ser
 50 55 60
 Ala Asn Gln Val Pro Glu Lys Leu Asp Val Val Val Ile Gly Ser
 65 70 75
 Gly Phe Gly Gly Leu Ala Ala Ala Ala Ile Leu Ala Lys Ala Gly
 80 85 90
 Lys Arg Val Leu Val Leu Glu Gln His Thr Lys Ala Gly Gly Cys
 95 100 105

Cys	His	Thr	Phe	Gly	Lys	Asn	Gly	Leu	Glu	Phe	Asp	Thr	Gly	Ile
				110					115					120
His	Tyr	Ile	Gly	Arg	Met	Glu	Glu	Gly	Ser	Ile	Gly	Arg	Phe	Ile
				125					130					135
Leu	Asp	Gln	Ile	Thr	Glu	Gly	Gln	Leu	Asp	Trp	Ala	Pro	Leu	Ser
				140					145					150
Ser	Pro	Phe	Asp	Ile	Met	Val	Leu	Glu	Gly	Pro	Asn	Gly	Arg	Lys
				155					160					165
Glu	Tyr	Pro	Met	Tyr	Ser	Gly	Glu	Lys	Ala	Tyr	Ile	Gln	Gly	Leu
				170					175					180
Lys	Glu	Lys	Phe	Pro	Gln	Glu	Glu	Ala	Ile	Ile	Asp	Lys	Tyr	Ile
				185					190					195
Lys	Leu	Val	Lys	Val	Val	Ser	Ser	Gly	Ala	Pro	His	Ala	Ile	Leu
				200					205					210
Leu	Lys	Phe	Leu	Pro	Leu	Pro	Val	Val	Gln	Leu	Leu	Asp	Arg	Cys
				215					220					225
Gly	Leu	Leu	Thr	Arg	Phe	Ser	Pro	Phe	Leu	Gln	Ala	Ser	Thr	Gln
				230					235					240
Ser	Leu	Ala	Glu	Val	Leu	Gln	Gln	Leu	Gly	Ala	Ser	Ser	Glu	Leu
				245					250					255
Gln	Ala	Val	Leu	Ser	Tyr	Ile	Phe	Pro	Thr	Tyr	Gly	Val	Thr	Pro
				260					265					270
Asn	His	Ser	Ala	Phe	Ser	Met	His	Ala	Leu	Leu	Val	Asn	His	Tyr
				275					280					285
Met	Lys	Gly	Gly	Phe	Tyr	Pro	Arg	Gly	Gly	Ser	Ser	Glu	Ile	Ala
				290					295					300
Phe	His	Thr	Ile	Pro	Val	Ile	Gln	Arg	Ala	Gly	Gly	Ala	Val	Leu
				305					310					315
Thr	Lys	Ala	Thr	Val	Gln	Ser	Val	Leu	Leu	Asp	Ser	Ala	Gly	Lys
				320					325					330
Ala	Cys	Gly	Val	Ser	Val	Lys	Lys	Gly	His	Glu	Leu	Val	Asn	Ile
				335					340					345
Tyr	Cys	Pro	Ile	Val	Val	Ser	Asn	Ala	Gly	Leu	Phe	Asn	Thr	Tyr
				350					355					360
Glu	His	Leu	Leu	Pro	Gly	Asn	Ala	Arg	Cys	Leu	Pro	Gly	Val	Lys
				365					370					375
Gln	Gln	Leu	Gly	Thr	Val	Arg	Pro	Gly	Leu	Gly	Met	Thr	Ser	Val
				380					385					390
Phe	Ile	Cys	Leu	Arg	Gly	Thr	Lys	Glu	Asp	Leu	His	Leu	Pro	Ser
				395					400					405
Thr	Asn	Tyr	Tyr	Val	Tyr	Tyr	Asp	Thr	Asp	Met	Asp	Gln	Ala	Met
				410					415					420

Glu Arg Tyr Val	Ser Met Pro Arg	Glu Glu Ala Ala	Glu His Ile
425		430	435
Pro Leu Leu Phe	Phe Ala Phe Pro Ser	Ala Lys Asp Pro Thr	Trp
440		445	450
Glu Asp Arg Phe	Pro Gly Arg Ser Thr	Met Ile Met Leu Ile	Pro
455		460	465
Thr Ala Tyr Glu	Trp Phe Glu Glu Trp	Gln Ala Glu Leu Lys	Gly
470		475	480
Lys Arg Gly Ser	Asp Tyr Glu Thr Phe	Lys Asn Ser Phe Val	Glu
485		490	495
Ala Ser Met Ser	Val Val Leu Lys Leu	Phe Pro Gln Leu Glu	Gly
500		505	510
Lys Val Glu Ser	Val Thr Ala Gly Ser	Pro Leu Thr Asn Gln	Phe
515		520	525
Tyr Leu Ala Ala	Pro Arg Gly Ala Cys	Tyr Gly Ala Asp His	Asp
530		535	540
Leu Gly Arg Leu	His Pro Cys Val Met	Ala Ser Leu Arg Ala	Gln
545		550	555
Ser Pro Ile Pro	Asn Leu Tyr Leu Thr	Gly Gln Asp Ile Phe	Thr
560		565	570
Cys Gly Leu Val	Gly Ala Leu Gln Gly	Ala Leu Leu Cys Ser	Ser
575		580	585
Ala Ile Leu Lys	Arg Asn Leu Tyr Ser	Asp Leu Lys Asn Leu	Asp
590		595	600
Ser Arg Ile Arg	Ala Gln Lys Lys Lys	Asn	
605		610	

<210> 114
 <211> 1701
 <212> DNA
 <213> Homo sapiens

<400> 114
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 gatagggctg acgctgctgc tgtgtgcggt gctgctgagc ttggcctcgg 150
 cgtcctcgga tgaagaagc agccaggatg aatccttaga ttccaagact 200
 actttgacat cagatgagtc agtaaaggac catactactg caggcagagt 250
 agttgctggt caaatatttc ttgattcaga agaattgtgaa ttgaatcct 300
 ctattcaaga agaggaagac agcctcaaga gccaagaggg gaaaagtgtc 350
 acagaagata tcagctttct agagtctcca aatccagaaa acaaggacta 400
 tgaagagcca aagaagtac ggaaccagc tttgaccgcc attgaaggca 450

cagcacatgg ggagccctgc cacttccctt tcttttctct agataaggag 500
 tatgatgaat gtacatcaga tgggaggagaa gatggcagac tgtggtgtgc 550
 tacaacctat gactacaaag cagatgaaaa gtggggcttt tgtgaaactg 600
 aagaagaggc tgctaagaga cggcagatgc aggaagcaga aatgatgtat 650
 caaacctggaa tgaataactt taatggaagc aataagaaaa gccaaaaaag 700
 agaagcatat cggtatctcc aaaaggcagc aagcatgaac cataccaaaag 750
 ccctggagag agtgtcatat gctcttttat ttggtgatta cttgccacag 800
 aatatccagg cagcgagaga gatgtttgag aagctgactg aggaaggctc 850
 tcccaaggga cagactgctc ttggctttct gtatgcctct ggacttggtg 900
 ttaattcaag tcaggcaaaag gctcttgtat attatacatt tggagctctt 950
 gggggcaatc taatagccca catgggtttt gtaagtagac tttagtggaa 1000
 ggctaataat attaacatca gaagaatttg tggtttatag cggccacaac 1050
 ttttccagct ttcattgatcc agatttgctt gtattaagac caaatattca 1100
 gttgaacttc cttcaaattc ttgttaattg atataacaca tggaaactac 1150
 atgtaaataa aagttggtgg agtccacaat ttttctttaa aatgattagt 1200
 ttggtgtatt gccctaaaa agagagatct gataaatggc tctttttaa 1250
 ttttctctga gttggaattg tcagaatcat tttttacatt agattatcat 1300
 aattttaaaa atttttcttt agtttttcaa aattttgtaa atgggtggcta 1350
 tagaaaaaca acatgaaata ttatacaata ttttgcaaca atgccctaag 1400
 aattgttaaa attcatggag ttattttgtgc agaatactc cagagagctc 1450
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 gtcatttatt gctagtgaac ctgtgcctgc ttccagtagt ctcattttcc 1550
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700

a 1701

<210> 115

<211> 301

<212> PRT

<213> Homo sapiens

<400> 115

Met Arg Val Arg Ile Gly Leu Thr Leu Leu Cys Ala Val Leu
 1 5 10 15

Leu Ser Leu Ala Ser Ala Ser Ser Asp Glu Gly Ser Gln Asp
 20 25 30

Glu Ser Leu Asp	Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val	35	40	45
Lys Asp His Thr	Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe	50	55	60
Leu Asp Ser Glu	Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu	65	70	75
Glu Asp Ser Leu	Lys Ser Gln Glu Gly Glu Ser Val Thr Glu Asp	80	85	90
Ile Ser Phe Leu	Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu	95	100	105
Glu Pro Lys Lys	Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly	110	115	120
Thr Ala His Gly	Glu Pro Cys His Phe Pro Phe Leu Phe Leu Asp	125	130	135
Lys Glu Tyr Asp	Glu Cys Thr Ser Asp Gly Arg Glu Asp Gly Arg	140	145	150
Leu Trp Cys Ala	Thr Thr Tyr Asp Tyr Lys Ala Asp Glu Lys Trp	155	160	165
Gly Phe Cys Glu	Thr Glu Glu Glu Ala Ala Lys Arg Arg Gln Met	170	175	180
Gln Glu Ala Glu	Met Met Tyr Gln Thr Gly Met Lys Ile Leu Asn	185	190	195
Gly Ser Asn Lys	Lys Ser Gln Lys Arg Glu Ala Tyr Arg Tyr Leu	200	205	210
Gln Lys Ala Ala	Ser Met Asn His Thr Lys Ala Leu Glu Arg Val	215	220	225
Ser Tyr Ala Leu	Leu Phe Gly Asp Tyr Leu Pro Gln Asn Ile Gln	230	235	240
Ala Ala Arg Glu	Met Phe Glu Lys Leu Thr Glu Glu Gly Ser Pro	245	250	255
Lys Gly Gln Thr	Ala Leu Gly Phe Leu Tyr Ala Ser Gly Leu Gly	260	265	270
Val Asn Ser Ser	Gln Ala Lys Ala Leu Val Tyr Tyr Thr Phe Gly	275	280	285
Ala Leu Gly Gly	Asn Leu Ile Ala His Met Val Leu Val Ser Arg	290	295	300

Leu

<210> 116
 <211> 584
 <212> DNA
 <213> Homo sapiens
 <400> 116

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 cttccttctg atggggacct tctgtcagt tcccagaca gtctctgccc 150
 agctggatgc actgctggtc tcccaggcc aagtggctca actctctcgc 200
 acgctcagcc ccagcacgt caccatcagg gactacgggtg tgccttgta 250
 ccagcagcgg gcaggcagtg cccctcgata tctctctac tacgctcgg 300
 aggaggatca ccacggcct gctgacatcc cggatcgatt ctggcgacc 350
 aaggatgagg cccacaatgc ctgtgtctc accattagtc cgtgcagcc 400
 tgaagacgac gcgattact actgctctgt tggctaogcc ttagtccct 450
 aggggtgggg tgtgagatgg gtgcctcccc tctgcctccc attctgccc 500
 ctgaccttgg gtccctttta aactttctct gagccttgct tcccctctgt 550
 aaaatgggtt aataatattc aacatgtcaa caac 584

<210> 117
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 117
 Met Ala Cys Arg Cys Leu Ser Phe Leu Leu Met Gly Thr Phe Leu
 1 5 10 15
 Ser Val Ser Gln Thr Val Leu Ala Gln Leu Asp Ala Ieu Leu Val
 20 25 30
 Phe Pro Gly Gln Val Ala Gln Leu Ser Cys Thr Leu Ser Pro Gln
 35 40 45
 His Val Thr Ile Arg Asp Tyr Gly Val Ser Trp Tyr Gln Gln Arg
 50 55 60
 Ala Gly Ser Ala Pro Arg Tyr Leu Leu Tyr Tyr Arg Ser Glu Glu
 65 70 75
 Asp His His Arg Pro Ala Asp Ile Pro Asp Arg Phe Ser Ala Ala
 80 85 90
 Lys Asp Glu Ala His Asn Ala Cys Val Leu Thr Ile Ser Pro Val
 95 100 105
 Gln Pro Glu Asp Asp Ala Asp Tyr Tyr Cys Ser Val Gly Tyr Gly
 110 115 120
 Phe Ser Pro

<210> 118
 <211> 3402
 <212> DNA
 <213> Homo sapiens

<400> 118

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 cgcccggggc ggcatgacc gggagcgca cgccgcggc cggccctga 100
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 tgacgccgag cccctgttg ctgctctgc tgcgcgcgt gctgctggg 200
 gccttccac ogcgccgc cgcccgagg ccccaaaga tggcgacaa 250
 ggtgttccca cggcaggtg cccggtggg cgcactgtg cggctgcagt 300
 gccagtgga gggggaccgc ccgccgctga catgtggac caagatggc 350
 cgcccatcc acagcggtg gagcgcttc cgcgtgctg cgaggggct 400
 gaaggtgaag caggtggagc gggaggtgc cggcgtgtac gtgtgcaag 450
 ccaccaacgc ctccggcgc ctgagcgtc actacacct cgtcgtgctg 500
 gatgacatta gccaggga ggagagcct gggcccgaca gtcctctgg 550
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 ccacccccca ccccaactgtc gtggtggccc cagatctctg taattttatg 3350
 tagagtttga gctgaagccc cgtatatatta atttattttg ttaaacacaa 3400
 aa 3402

<210> 119
 <211> 504
 <212> PRT
 <213> Homo sapiens

<400> 119
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu
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 Leu Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys
 20 25 30
 Met Ala Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg
 35 40 45
 Thr Val Arg Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu
 50 55 60
 Thr Met Trp Thr Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser
 65 70 75
 Arg Phe Arg Val Leu Pro Gln Gly Leu Lys Val Lys Gln Val Glu
 80 85 90
 Arg Glu Asp Ala Gly Val Tyr Val Cys Lys Ala Thr Asn Gly Phe
 95 100 105
 Gly Ser Leu Ser Val Asn Tyr Thr Leu Val Val Leu Asp Asp Ile
 110 115 120
 Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly
 125 130 135
 Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr
 140 145 150
 Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly
 155 160 165
 Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
 170 175 180
 Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu
 185 190 195
 Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn
 200 205 210
 Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn
 215 220 225
 Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln
 230 235 240

Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	245	250	255
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	260	265	270
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	275	280	285
Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	290	295	300
Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	305	310	315
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	320	325	330
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	335	340	345
Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	350	355	360
Pro	Pro	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	365	370	375
Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	380	385	390
Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	395	400	405
Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	410	415	420
Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	425	430	435
Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	440	445	450
Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val	455	460	465
Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	470	475	480
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	485	490	495
Val	His	Gln	His	Ile	His	Tyr	Gln	Cys							500		

<210> 120

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 120

cgagatgacg ccgagccccc 20

<210> 121

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 121

cggttcgaca cgcggcaggt g 21

<210> 122

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 122

tgctgctcct gctgccgccg ctgctgctgg gggccttccc gccgg 45

<210> 123

<211> 4420

<212> DNA

<213> Homo sapiens

<400> 123

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gcctgggtgt tctccttct ggtcctggaa gtcacatctg tgttggggag 200

acagacgatg ctcaccagct cagtaagaag agtccagcct gggaagaaga 250

acccagcat ctttgccaag cctgccgaca cctggagag ccctggtgag 300

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tctccctgga gcaagtgcct agctgcctgt ggtcagactg gggccacagc 650

tgcacacgc atttgcttgg cagagatggt gtcgctgtgc agtgaggcca 700

gcgaagaggg tcagcactgc atgggccagg actgtacagc ctgtgacctg 750

acctgcccaa tggggccaggt gaatgtgac tgtgatgcct gcattgtcca 800

ggacttcacg cttcatgggg ctgtctcctt tcccggaggt gcccagcct 850

cagggggtgc tatctacotc ctgaccaaga cgccgaagct gctgaccagc 900
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 tgcccaagac tagcotgaag gcagccacca tcaaggcaga gtttgtgagg 1050
 gcagagactc catacatggt gatgaaccct gagacaaaag cacggagagc 1100
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 ggagtaactt tgcaaggccc agagtgatgc tggggctgtg aagtccaagg 1300
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 acttaatgct ggcaaaagtga aggtccacct tgaactgacc caggtaacga 2200
 tgccagagca catatccaca gtgaaactct ggtoactcaa tccagacaca 2250
 gggctgtggg aggaggaag tgatttcaaa ttgaaaatc aaaggaggaa 2300
 caaaagagaa gacagaaact tctgtgtggg caacctggag attcgtgaga 2350
 ggaggctctt taacctggat gttctgaaa gcaggcggtg ctttgttaag 2400
 gtgagggcct accggagtga gaggttcttg cctagtgagc agatccaggg 2450

ggttgatgc tcogtgatta acctggagcc tagaactggc ttcttgtcca 2500
 accctagggc ctggggccgc tttagactgt tcatcacagg ccccaacggg 2550
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 aagctcaact acogtcggac ggacctgat gatccacggg ttaaaaagac 2750
 agctttccag attagcatgg ccaagccaag gcccaactca gctgaggaga 2800
 gcaatggggc catctatgcc tttagaacc tccgggcatg tgaagaggca 2850
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 aagactatct ggcattgtgg ccaaagccga tggattcag ggctgtctat 3000
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 atgtgaggag cactcgggac agggaccagc ccaatgtctc agctgctgt 3150
 ctggagttca agtgcatgg gatgtctat gatcaggacc gtgtggaccg 3200
 caccctggtg aaggatcatc ccaggggcag ctgccgtcga gccagtgtga 3250
 acccatgct gcatgagtac ctggtcaacc acttgccact tgcagtcaac 3300
 aacgacacca gtgagtacac catgctggca cccttgacc cactgggcca 3350
 caactatggc atctacactg tcaactacca ggaccctcgc acggccaagg 3400
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 ggcacgtggc ccccaaatg gcacaataaa gccctttgtt gaaactgttc 3900
 ttaaatgaa acacaagaaa ttggccactg gtaaaactct gcagcttcaa 3950
 ctgtacttca ttaaatgcca ttaatgcaaa tatacttctt cttctttttg 4000
 catggttttg cccacctctg caatagtgat aatctgatgc tgaagatcaa 4050

ataaccaata taaagcatat ttcttgccct tgctccacag gacataggca 4100
 agccttgatc atagttcata catataaatg gtggtgaaat aaagaaataa 4150
 aacacaatac ttttacttga aatgtaaata acttatttat ttctttgcta 4200
 aatttggaaat tctagtgcac attcaaagt aagctattaa atataggggtg 4250
 atcatagttc ctctaccaag tctggaaaga acatctcctg gtatccacaa 4300
 ttacaccagg ttgctaactg tatttgtaca ttccctttg cattcgcttt 4350
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 tactctgtat ttcgaaaaa 4420

<210> 124
 <211> 1184
 <212> PRT
 <213> Homo sapiens

<400> 124
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 20 25 30
 Arg Arg Val Gln Pro Gly Lys Lys Asn Pro Ser Ile Phe Ala Lys
 35 40 45
 Pro Ala Asp Thr Leu Glu Ser Pro Gly Glu Trp Thr Thr Trp Phe
 50 55 60
 Asn Ile Asp Tyr Pro Gly Gly Lys Gly Asp Tyr Glu Arg Leu Asp
 65 70 75
 Ala Ile Arg Phe Tyr Tyr Gly Asp Arg Val Cys Ala Arg Pro Leu
 80 85 90
 Arg Leu Glu Ala Arg Thr Thr Asp Trp Thr Pro Ala Gly Ser Thr
 95 100 105
 Gly Gln Val Val His Gly Ser Pro Arg Glu Gly Phe Trp Cys Leu
 110 115 120
 Asn Arg Glu Gln Arg Pro Gly Gln Asn Cys Ser Asn Tyr Thr Val
 125 130 135
 Arg Phe Leu Cys Pro Pro Gly Ser Leu Arg Arg Asp Thr Glu Arg
 140 145 150
 Ile Trp Ser Pro Trp Ser Pro Trp Ser Lys Cys Ser Ala Ala Cys
 155 160 165
 Gly Gln Thr Gly Val Gln Thr Arg Thr Arg Ile Cys Leu Ala Glu
 170 175 180
 Met Val Ser Leu Cys Ser Glu Ala Ser Glu Glu Gly Gln His Cys
 185 190 195
 Met Gly Gln Asp Cys Thr Ala Cys Asp Leu Thr Cys Pro Met Gly
 200 205 210

Gln Val Asn Ala	Asp Cys Asp Ala Cys	Met Cys Gln Asp Phe	Met
215		220	225
Leu His Gly Ala	Val Ser Leu Pro Gly	Gly Ala Pro Ala Ser	Gly
230		235	240
Ala Ala Ile Tyr	Leu Leu Thr Lys Thr	Pro Lys Leu Leu Thr	Gln
245		250	255
Thr Asp Ser Asp	Gly Arg Phe Arg Ile	Pro Gly Leu Cys Pro	Asp
260		265	270
Gly Lys Ser Ile	Leu Lys Ile Thr Lys	Val Lys Phe Ala Pro	Ile
275		280	285
Val Leu Thr Met	Pro Lys Thr Ser Leu	Lys Ala Ala Thr Ile	Lys
290		295	300
Ala Glu Phe Val	Arg Ala Glu Thr Pro	Tyr Met Val Met Asn	Pro
305		310	315
Glu Thr Lys Ala	Arg Arg Ala Gly Gln	Ser Val Ser Leu Cys	Cys
320		325	330
Lys Ala Thr Gly	Lys Pro Arg Pro Asp	Lys Tyr Phe Trp Tyr	His
335		340	345
Asn Asp Thr Leu	Leu Asp Pro Ser Leu	Tyr Lys His Glu Ser	Lys
350		355	360
Leu Val Leu Arg	Lys Leu Gln Gln His	Gln Ala Gly Glu Tyr	Phe
365		370	375
Cys Lys Ala Gln	Ser Asp Ala Gly Ala	Val Lys Ser Lys Val	Ala
380		385	390
Gln Leu Ile Val	Thr Ala Ser Asp Glu	Thr Pro Cys Asn Pro	Val
395		400	405
Pro Glu Ser Tyr	Leu Ile Arg Leu Pro	His Asp Cys Phe Gln	Asn
410		415	420
Ala Thr Asn Ser	Phe Tyr Tyr Asp Val	Gly Arg Cys Pro Val	Lys
425		430	435
Thr Cys Ala Gly	Gln Gln Asp Asn Gly	Ile Arg Cys Arg Asp	Ala
440		445	450
Val Gln Asn Cys	Cys Gly Ile Ser Lys	Thr Glu Glu Arg Glu	Ile
455		460	465
Gln Cys Ser Gly	Tyr Thr Leu Pro Thr	Lys Val Ala Lys Glu	Cys
470		475	480
Ser Cys Gln Arg	Cys Thr Glu Thr Arg	Ser Ile Val Arg Gly	Arg
485		490	495
Val Ser Ala Ala	Asp Asn Gly Glu Pro	Met Arg Phe Gly His	Val
500		505	510
Tyr Met Gly Asn	Ser Arg Val Ser Met	Thr Gly Tyr Lys Gly	Thr
515		520	525

Phe Thr Leu His	Val Pro Gln Asp Thr	Glu Arg Leu Val Leu Thr	530	535	540
Phe Val Asp Arg	Leu Gln Lys Phe Val	Asn Thr Thr Lys Val Leu	545	550	555
Pro Phe Asn Lys	Lys Gly Ser Ala Val	Phe His Glu Ile Lys Met	560	565	570
Leu Arg Arg Lys	Glu Pro Ile Thr Leu	Glu Ala Met Glu Thr Asn	575	580	585
Ile Ile Pro Leu	Gly Glu Val Val Gly	Glu Asp Pro Met Ala Glu	590	595	600
Leu Glu Ile Pro	Ser Arg Ser Phe Tyr	Arg Gln Asn Gly Glu Pro	605	610	615
Tyr Ile Gly Lys	Val Lys Ala Ser Val	Thr Phe Leu Asp Pro Arg	620	625	630
Asn Ile Ser Thr	Ala Thr Ala Ala Gln	Thr Asp Leu Asn Phe Ile	635	640	645
Asn Asp Glu Gly	Asp Thr Phe Pro Leu	Arg Thr Tyr Gly Met Phe	650	655	660
Ser Val Asp Phe	Arg Asp Glu Val Thr	Ser Glu Pro Leu Asn Ala	665	670	675
Gly Lys Val Lys	Val His Leu Asp Ser	Thr Gln Val Lys Met Pro	680	685	690
Glu His Ile Ser	Thr Val Lys Leu Trp	Ser Leu Asn Pro Asp Thr	695	700	705
Gly Leu Trp Glu	Glu Glu Gly Asp Phe	Lys Phe Glu Asn Gln Arg	710	715	720
Arg Asn Lys Arg	Glu Asp Arg Thr Phe	Leu Val Gly Asn Leu Glu	725	730	735
Ile Arg Glu Arg	Arg Leu Phe Asn Leu	Asp Val Pro Glu Ser Arg	740	745	750
Arg Cys Phe Val	Lys Val Arg Ala Tyr	Arg Ser Glu Arg Phe Leu	755	760	765
Pro Ser Glu Gln	Ile Gln Gly Val Val	Ile Ser Val Ile Asn Leu	770	775	780
Glu Pro Arg Thr	Gly Phe Leu Ser Asn	Pro Arg Ala Trp Gly Arg	785	790	795
Phe Asp Ser Val	Ile Thr Gly Pro Asn	Gly Ala Cys Val Pro Ala	800	805	810
Phe Cys Asp Asp	Gln Ser Pro Asp Ala	Tyr Ser Ala Tyr Val Leu	815	820	825
Ala Ser Leu Ala	Gly Glu Glu Leu Gln	Ala Val Glu Ser Ser Pro	830	835	840

Lys Phe Asn Pro	Asn Ala Ile Gly Val	Pro Gln Pro Tyr Leu Asn
845		850 855
Lys Leu Asn Tyr	Arg Arg Thr Asp His	Glu Asp Pro Arg Val Lys
860		865 870
Lys Thr Ala Phe	Gln Ile Ser Met Ala	Lys Pro Arg Pro Asn Ser
875		880 885
Ala Glu Glu Ser	Asn Gly Pro Ile Tyr	Ala Phe Glu Asn Leu Arg
890		895 900
Ala Cys Glu Glu	Ala Pro Pro Ser Ala	Ala His Phe Arg Phe Tyr
905		910 915
Gln Ile Glu Gly	Asp Arg Tyr Asp Tyr	Asn Thr Val Pro Phe Asn
920		925 930
Glu Asp Asp Pro	Met Ser Trp Thr Glu	Asp Tyr Leu Ala Trp Trp
935		940 945
Pro Lys Pro Met	Glu Phe Arg Ala Cys	Tyr Ile Lys Val Lys Ile
950		955 960
Val Gly Pro Leu	Glu Val Asn Val Arg	Ser Arg Asn Met Gly Gly
965		970 975
Thr His Arg Arg	Thr Val Gly Lys Leu	Tyr Gly Ile Arg Asp Val
980		985 990
Arg Ser Thr Arg	Arg Asp Gln Pro Asn	Val Ser Ala Ala Cys
995		1000 1005
Leu Glu Phe Lys	Cys Ser Gly Met Leu	Tyr Asp Gln Asp Arg Val
1010		1015 1020
Asp Arg Thr Leu	Val Lys Val Ile Pro	Gln Gly Ser Cys Arg Arg
1025		1030 1035
Ala Ser Val Asn	Pro Met Leu His Glu	Tyr Leu Val Asn His Leu
1040		1045 1050
Pro Leu Ala Val	Asn Asn Asp Thr Ser	Glu Tyr Thr Met Leu Ala
1055		1060 1065
Pro Leu Asp Pro	Leu Gly His Asn Tyr	Gly Ile Tyr Thr Val Thr
1070		1075 1080
Asp Gln Asp Pro	Arg Thr Ala Lys Glu	Ile Ala Leu Gly Arg Cys
1085		1090 1095
Phe Asp Gly Thr	Ser Asp Gly Ser Ser	Arg Ile Met Lys Ser Asn
1100		1105 1110
Val Gly Val Ala	Leu Thr Phe Asn Cys	Val Glu Arg Gln Val Gly
1115		1120 1125
Arg Gln Ser Ala	Phe Gln Tyr Leu Gln	Ser Thr Pro Ala Gln Ser
1130		1135 1140
Pro Ala Ala Gly	Thr Val Gln Gly Arg	Val Pro Ser Arg Arg Gln
1145		1150 1155

Gln Arg Ala Ser Arg Gly Gly Gln Arg Gln Gly Gly Val Val Ala
 1160 1165 1170

Ser Leu Arg Phe Pro Arg Val Ala Gln Gln Pro Leu Ile Asn
 1175 1180

<210> 125
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 125
 ctggtgcctc aacaggagc ag 22

<210> 126
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 126
 ccattgtgca ggtcaggtca cag 23

<210> 127
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 127
 ctggagcaag tgctcagctg cctgtgggtca gactggggtc 40

<210> 128
 <211> 2819
 <212> DNA
 <213> Homo sapiens

<400> 128
 ctgcaagtgtg ttaacgccta acacacaagt atgttaggct tccaccaag 50
 tcctcaatat acctgaatac gcacaatatc ttaactcttc atatttggtt 100
 ttgggatctg ctttgaggto ccatcttcat ttaaaaaaaa atacagagac 150
 ctacctaccg gtacgcatac atacatatgt gtatatatat gttaaactaga 200
 caaagatcgc agatcataaa gcaagctctg ctttagtttc caagaagatt 250
 acaagaatt tagagatgta tttgtcaaga tccctgtoga ttcatgccct 300
 ttgggttacg gtgtcctcag tgatgcagcc ctaccctttg gtttggggac 350
 attatgattt gtgtaagact cagatttaca cggaagaagg gaaagtttgg 400
 gattacatgg cctgccagcc ggaatccagc gacatgacaa aatatctgaa 450

agtgaaactc gatcctccgg atattacotg tggagaccct cctgagacgt 500
 tctgtgcaat gggcaatccc tacatgtgca ataagtgtg tgatgcgagt 550
 acccctgagc tggcacaccc ccctgagctg atgtttgatt ttgaagggaag 600
 acatccctcc acattttggc agtctgccac ttggaaggag tatcccaagc 650
 ctctccagggt taacatcact ctgtcttggg gcaaaacctat tgagctaaca 700
 gacaacatag ttattacott tgaatctggg cgtccagacc aaatgatcct 750
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 aaaaaaaaaa aaaaaaaaaa 2819

<210> 129
 <211> 438
 <212> PRT
 <213> Homo sapiens

<400> 129
 Met Tyr Leu Ser Arg Ser Leu Ser Ile His Ala Leu Trp Val Thr
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 Val Ser Ser Val Met Gln Pro Tyr Pro Leu Val Trp Gly His Tyr
 20 25 30
 Asp Leu Cys Lys Thr Gln Ile Tyr Thr Glu Glu Gly Lys Val Trp
 35 40 45
 Asp Tyr Met Ala Cys Gln Pro Glu Ser Thr Asp Met Thr Lys Tyr
 50 55 60
 Leu Lys Val Lys Leu Asp Pro Pro Asp Ile Thr Cys Gly Asp Pro
 65 70 75
 Pro Glu Thr Phe Cys Ala Met Gly Asn Pro Tyr Met Cys Asn Asn
 80 85 90
 Glu Cys Asp Ala Ser Thr Pro Glu Leu Ala His Pro Pro Glu Leu
 95 100 105
 Met Phe Asp Phe Glu Gly Arg His Pro Ser Thr Phe Trp Gln Ser
 110 115 120
 Ala Thr Trp Lys Glu Tyr Pro Lys Pro Leu Gln Val Asn Ile Thr

125	130	135
Leu Ser Trp Ser Lys Thr Ile Glu Leu Thr Asp Asn Ile Val Ile		
140	145	150
Thr Phe Glu Ser Gly Arg Pro Asp Gln Met Ile Leu Glu Lys Ser		
155	160	165
Leu Asp Tyr Gly Arg Thr Trp Gln Pro Tyr Gln Tyr Tyr Ala Thr		
170	175	180
Asp Cys Leu Asp Ala Phe His Met Asp Pro Lys Ser Val Lys Asp		
185	190	195
Leu Ser Gln His Thr Val Leu Glu Ile Ile Cys Thr Glu Glu Tyr		
200	205	210
Ser Thr Gly Tyr Thr Thr Asn Ser Lys Ile Ile His Phe Glu Ile		
215	220	225
Lys Asp Arg Phe Ala Leu Phe Ala Gly Pro Arg Leu Arg Asn Met		
230	235	240
Ala Ser Leu Tyr Gly Gln Leu Asp Thr Thr Lys Lys Leu Arg Asp		
245	250	255
Phe Phe Thr Val Thr Asp Leu Arg Ile Arg Leu Leu Arg Pro Ala		
260	265	270
Val Gly Glu Ile Phe Val Asp Glu Leu His Leu Ala Arg Tyr Phe		
275	280	285
Tyr Ala Ile Ser Asp Ile Lys Val Arg Gly Arg Cys Lys Cys Asn		
290	295	300
Leu His Ala Thr Val Cys Val Tyr Asp Asn Ser Lys Leu Thr Cys		
305	310	315
Glu Cys Glu His Asn Thr Thr Gly Pro Asp Cys Gly Lys Cys Lys		
320	325	330
Lys Asn Tyr Gln Gly Arg Pro Trp Ser Pro Gly Ser Tyr Leu Pro		
335	340	345
Ile Pro Lys Gly Thr Ala Asn Thr Cys Ile Pro Ser Ile Ser Ser		
350	355	360
Ile Gly Thr Asn Val Cys Asp Asn Glu Leu Leu His Cys Gln Asn		
365	370	375
Gly Gly Thr Cys His Asn Asn Val Arg Cys Leu Cys Pro Ala Ala		
380	385	390
Tyr Thr Gly Ile Leu Cys Glu Lys Leu Arg Cys Glu Glu Ala Gly		
395	400	405
Ser Cys Gly Ser Asp Ser Gly Gln Gly Ala Pro Pro His Gly Thr		
410	415	420
Pro Ala Leu Leu Leu Leu Thr Thr Leu Leu Gly Thr Ala Ser Pro		
425	430	435
Leu Val Phe		

<210> 130
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 130
tcgattatgg acgaacatgg cagc 24

<210> 131
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 131
ttctgagatc cctcatcctc 20

<210> 132
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 132
aggttcaggg acagcaagtt tggg 24

<210> 133
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 133
tttgtggac ctgggctacg gaattggctt ccctctacgg acagctggat 50

<210> 134
<211> 1493
<212> DNA
<213> Homo sapiens

<400> 134
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ctgaggaggc ggcgggtagc tggcaggcgc cgacttcoga aggccgcgt 100
ccgggcgagg tgtcctcatg acttctcttg tggaccatgt ccgtgatctt 150
ttttgcctgc gtgttacggg taagggatgg actgcccctc tcagcctcta 200
ctgattttta ccacaccaa gatttttgg aatggaggag acggctcaag 250
agtttagcct tgcgactggc ccagtatcca ggtcgagggt ctgcagaagg 300

ttgtgacttt agtatacatt ttctctcttt cggggacgtg gcoctgcatgg 350
 ctatctgtctc ctgccagtgt ccagcagcca tggccttctg cttcctggag 400
 accctgtggt ggaattcac agcttctat gacactacct gcattggcct 450
 agcctccagg ccatacgctt ttcttgagtt tgacagcatc attcagaaa 500
 tgaagtggca ttttaactat gtaagttcct ctcagatgga gtgcagcttg 550
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 ggaggacaca gatgtggcaa atgggggtgat gaatggtcac acaccgatgc 650
 acttgagacc tgctcctaatt ttccgaatgg aaccagtgac agccctgggt 700
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 aggagttcac cttgcagaac attctttaca ggatccaagg agctggttct 800
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 gatttgatcc ccaggatcc tattttgttt aatgggcttt tctactaaaa 1200
 gcataaaaata ctgaggctga tttagtccag gcaaaacat ttactttaca 1250
 tattcgtttt caatacttgc tgttcatgtt acacaagctt cttacggttt 1300
 tcttgtaaca ataaatattt tgagtaaaata atgggtacat ttaacaaaac 1350
 tcagtagtac aacctaaact tgtataaaag tgtgtaaaaa tgtatagcca 1400
 tttatctcct atgtataaat taaatgaggt ggcttcagaa atggcagaat 1450
 aaatcctaag tgtttattaa aaaaaaaaaa aaaaaaaaaa aag 1493

<210> 135

<211> 228

<212> PRT

<213> Homo sapiens

<400> 135

Met	Ser	Val	Ile	Phe	Phe	Ala	Cys	Val	Val	Arg	Val	Arg	Asp	Gly
1				5					10				15	
Leu	Pro	Leu	Ser	Ala	Ser	Thr	Asp	Phe	Tyr	His	Thr	Gln	Asp	Phe
			20					25					30	
Leu	Glu	Trp	Arg	Arg	Arg	Leu	Lys	Ser	Leu	Ala	Leu	Arg	Leu	Ala
			35					40					45	

Gln	Tyr	Pro	Gly	Arg	Gly	Ser	Ala	Glu	Gly	Cys	Asp	Phe	Ser	Ile	
				50					55					60	
His	Phe	Ser	Ser	Phe	Gly	Asp	Val	Ala	Cys	Met	Ala	Ile	Cys	Ser	
				65					70					75	
Cys	Gln	Cys	Pro	Ala	Ala	Met	Ala	Phe	Cys	Phe	Leu	Glu	Thr	Leu	
				80					85					90	
Trp	Trp	Glu	Phe	Thr	Ala	Ser	Tyr	Asp	Thr	Thr	Cys	Ile	Gly	Leu	
				95					100					105	
Ala	Ser	Arg	Pro	Tyr	Ala	Phe	Leu	Glu	Phe	Asp	Ser	Ile	Ile	Gln	
				110					115					120	
Lys	Val	Lys	Trp	His	Phe	Asn	Tyr	Val	Ser	Ser	Ser	Gln	Met	Glu	
				125					130					135	
Cys	Ser	Leu	Glu	Lys	Ile	Gln	Glu	Glu	Leu	Lys	Leu	Gln	Pro	Pro	
				140					145					150	
Ala	Val	Leu	Thr	Leu	Glu	Asp	Thr	Asp	Val	Ala	Asn	Gly	Val	Met	
				155					160					165	
Asn	Gly	His	Thr	Pro	Met	His	Leu	Glu	Pro	Ala	Pro	Asn	Phe	Arg	
				170					175					180	
Met	Glu	Pro	Val	Thr	Ala	Leu	Gly	Ile	Leu	Ser	Leu	Ile	Leu	Asn	
				185					190					195	
Ile	Met	Cys	Ala	Ala	Leu	Asn	Leu	Ile	Arg	Gly	Val	His	Leu	Ala	
				200					205					210	
Glu	His	Ser	Leu	Gln	Asp	Pro	Arg	Ser	Trp	Phe	Cys	Trp	Leu	Asp	
				215					220					225	
Gln	Thr	Ser													

<210> 136
 <211> 239
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 39, 61, 143, 209
 <223> unknown base

<400> 136
 tgcttcctgg agacctctgg gtgggaattc acagcttcnt atgacactac 50
 ctgcattggc ntacgctcca ggccatacgc ttttcttgag ttgacagca 100
 tcattcagaa agtgaagtgg cattttaact atgtaagttc cntcagatg 150
 gagtgcagct tggaaaaaat tcaggaggag ctcaagttgc agcctccagc 200
 gggttcant atggaggaca cagatgtggc aaatggggt 239

<210> 137
 <211> 2300
 <212> DNA

<213> Homo sapiens

<400> 137

ctcagcggcg cttcctcgta gcgagcctag tggcgggtgt ttgcattgaa 50
acgtgagcgc gacccgacct taaagagtgg ggagcaaagg gaggacagag 100
ccctttaaaa cgaggcgggt ggtgcctgcc cctttaaggg cggggcgctcc 150
ggacgactgt atctgagccc cagactgccc cgagtttctg tcgcaggctg 200
cgaggaaagg ccctaggct gggctctgggt gcttggcggc ggcggtctcc 250
tcccgcctcg tcctcccggg gccacagggc acctcggctt cagtcattgct 300
gagcagagta tggaaagacc tgactacgaa gtgctatccg tgcgagaaca 350
gctattccac gagaggatcc gcgagtgtat tatatcaaca cttctgtttg 400
caaacactgta catcctctgc cacatcttcc tgacccgctt caagaagctc 450
gtcaggttca ccacagtggg tgatgaagat gccaccgtca acaagattgc 500
gtcgcagctg tgcaccttta ccttggaat tgccctgggt gctgtcctgc 550
tcttgccctt ctccatcctc agcaatgagg tgcgtctctc cctgcctcgg 600
aactactaca tccagtggct caacggctcc ctcattccat gccctctggaa 650
cctgtttttt ctcttcccca acctgtccct catcttcttc atgccctttg 700
catatttctt cactgagtct gagggtcttg ctggctccag aaaggggtgc 750
ctggggccgg tctatgagac agtgggtgat ttgatgctcc tcactctgct 800
gggtctaggt atgggtgtgg tggcctcagc cattgtggac aagaacaagg 850
ccaacagaga gtoactctat gacttttggg agtactatct cccctacctc 900
tactcatgca tctccttctt tgggttcttg ctgctcctgg tgtgtactcc 950
actgggtctc gcccgcatgt tctccgtcac tgggaagctg ctagtcaagc 1000
cccggtctgt ggaagacctg gaggagcagc tgtactgtct agccttttag 1050
gaggcagccc tgaccgcag gatctgtaat cctacttctt gctggtctgc 1100
tttagacatg gagctgctac acagacaggt cctggctctg cagacacaga 1150
gggtctctgt ggagaagagg cggaaggctt cagcctggca acggaacctg 1200
ggctaccccc tggctatgct gtgcttgctg gtgctgacgg gccctgtctg 1250
gctcatttgt gccatccaca tcctggagct gctcatcgat gaggctgcc 1300
tgccccgagg catgcagggt acctccttag gccaggtctc cttctccaag 1350
ctgggtctct ttgggtccgt cattcaggtt gtactcatct ttacctaat 1400
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tgtctcctgg tcctaagctc agcacttctt gtcttctctc gaacctctgg 1550
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 gcaatttcta cattgtgttc ctctacaacg cagccttttc aggcctcacc 1650
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 aggcctctag gaagaccag caccagtgc ctcacgtgg ggtggggaag 1800
 gaaaaaactg gacactgcca tctgctgcct aggcctggag ggaagcccaa 1850
 ggctacttgg acctcaggac ctggaatctg agagggtggg tggcagaggg 1900
 gagcagagcc atctgcacta ttgcataatc tgagccagag tttgggaacca 1950
 ggacctctg cttttccata cttaactgtg gcctcagcat ggggtagggc 2000
 tgggtgactg ggtctagccc ctgatcccaa atctgtttac acatcaatct 2050
 gcctcactgc tgttctgggc catcccata gccatgttta catgatttga 2100
 tgtgcaatag ggtggggtag gggcagggaa aggactgggc cagggcaggc 2150
 tcgggagata gattgtctcc ctgcctctg gccacagaga gcctaagcac 2200
 tgtgtctatc tggaggggct ttgaccacc tgaagacca aggggatagg 2250
 gaggagggag cttcagccat cagcaataaa gttgatccca gggaaaaaaa 2300

<210> 138
 <211> 489
 <212> FRT
 <213> Homo sapiens

<400> 138
 Met Glu Ala Pro Asp Tyr Glu Val Leu Ser Val Arg Glu Gln Leu
 1 5 10 15
 Phe His Glu Arg Ile Arg Glu Cys Ile Ile Ser Thr Leu Leu Phe
 20 25 30
 Ala Thr Leu Tyr Ile Leu Cys His Ile Phe Leu Thr Arg Phe Lys
 35 40 45
 Lys Pro Ala Glu Phe Thr Thr Val Asp Asp Glu Asp Ala Thr Val
 50 55 60
 Asn Lys Ile Ala Leu Glu Leu Cys Thr Phe Thr Leu Ala Ile Ala
 65 70 75
 Leu Gly Ala Val Leu Leu Leu Pro Phe Ser Ile Ile Ser Asn Glu
 80 85 90
 Val Leu Leu Ser Leu Pro Arg Asn Tyr Tyr Ile Gln Trp Leu Asn
 95 100 105
 Gly Ser Leu Ile His Gly Leu Trp Asn Leu Val Phe Leu Phe Pro
 110 115 120
 Asn Leu Ser Leu Ile Phe Leu Met Pro Phe Ala Tyr Phe Phe Thr

	440		445		450
Leu Val Lys Thr	Phe Thr Ala Ala Val	Arg Ala Glu Leu Ile	Arg		
	455		460		465
Ala Phe Gly Leu	Asp Arg Leu Pro Leu	Pro Val Ser Gly Phe	Pro		
	470		475		480
Gln Ala Ser Arg	Lys Thr Gln His Gln				
	485				

<210> 139
 <211> 294
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 53, 57
 <223> unknown base

<400> 139
 ggctgccgag ggaaggcccc ttgggttggt cttggttgct tggcggcggc 50
 ggnntentcc ccgctcgtcc tccccgggcc cagaggcacc tcgggttcag 100
 tcatgctgag cagagtatgg aagcacctga ctacgaagtg ctatccgtgc 150
 gagaacagct attccacgag aggatccgcg agtgatttat atcaacactt 200
 ctgtttgcaa cactgtacat cctctgccac atcttctctga ccgcttcaa 250
 gaagcctgct gagttcacca cagtggatga tgaagatgcc accg 294

<210> 140
 <211> 526
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 197, 349
 <223> unknown base

<400> 140
 gaccgacctt aaagagtggg agcaaaggga ggacagagcc ttttaaaacg 50
 aggcggttggt gcctgccctt taaggggcgg gcgtccggac gactgtatct 100
 gagccccaga ctgccccgag tttctgtcgc aggctgcgag gaaaggcccc 150
 taggctgggt ctgggtcctg gcggcggcgg ctctctcccc gttgtentcc 200
 ccgggcccag aggcacctcg gcttcagtca tgctgagcag agtatggaag 250
 cacctgacta cgaagtgcta tccgtgcgag aacagctatt ccacgagag 300
 atccgcgagt gtattatata aacacttctg tttgcaacac tgtacatcnt 350
 ctgccacatc ttcctgacct gcttcaagaa ccctgctgag ttcaccacag 400
 tggatgatga agatgccacc gtcaacaaga ttgcgctcga gctgtgcacc 450

tttacccctgg caattgccct ggggtgctgtc ctgctcctgc ccttctccat 500

catcagcaat gaggtgctgc actccc 526

<210> 141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 141

gactgtatct gagccccaga ctgc 24

<210> 142

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 142

tcagcaatga ggtgctgctc 20

<210> 143

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 143

tgaggaagat gagggacagg ttgg 24

<210> 144

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 144

tatggaagca cctgactacg aagtgcctatc cgtgcgagaa cagctattcc 50

<210> 145

<211> 685

<212> DNA

<213> Homo sapiens

<400> 145

gatgtgtccc ttggagctgg tgtgcagtgt cctgactgta agatcaagtc 50

caaacctgtt ttggaattga ggaaacttct cttttgatct cagccottgg 100

tggtocaggc cttcatgctg ctgtgggtga tattactggt cctggctcct 150

gtcagtgtag agtttgcaag gacaccacag ccattattt tcctccagcc 200

tcattggacc acagtcttcc aaggagagag agtgaccctc acttgcaagg 250

gatttcgctt ctactcacca cagaaaacaa aatggtacca tcggtacctt 300
 gggaaagaaa tactaagaga aaccccagac aatatccttg aggttcagga 350
 atctggagag tacagatgcc agggccaggg ctcccctctc agtagccctg 400
 tgcacttga tttttcttca gagatgggat ttctctatgc tgcccaggct 450
 aatgttgaac tcctgggctc aagtgatctg ctcacctagg cctctcaaag 500
 cgctgggatt acagcttcgc tgatcctgca agctccactt tctgtgtttg 550
 aaggagactc tgtggttctg aggtgccggg caaaggcgga agtaacactg 600
 aataatacta ttacaagaa tgataatgtc ctggcattcc ttaataaaa 650
 aactgacttc caaaaaaaaa aaaaaaaaaa aaaaa 685

<210> 146
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 146
 Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly
 1 5 10 15
 Gln Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro
 20 25 30
 Trp Thr Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys
 35 40 45
 Gly Phe Arg Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg
 50 55 60
 Tyr Leu Gly Lys Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu
 65 70 75
 Glu Val Gln Glu Ser Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser
 80 85 90
 Pro Leu Ser Ser Pro Val His Leu Asp Phe Ser Ser Glu Met Gly
 95 100 105
 Phe Pro His Ala Ala Gln Ala Asn Val Glu Leu Leu Gly Ser Ser
 110 115 120
 Asp Leu Leu Thr

<210> 147
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 147
 cagaagagg ggctagctag ctgtctctgc ggaccaggga gacccccgcg 50
 ccccccggt gtgaggcggc ctcacagggc cgggtgggct ggcgagccga 100
 cgcgcgcgcg gaggaggctg tgaggagtgt gtggaacagg acccgggaca 150

gaggaacat ggctccgcag aacctgagca ccttttgcct gttgctgcta 200
 tacctcatcg gggcggtgat tgccggacga gatttctata agatcttggg 250
 ggtgcctcga agtgcctcta taaaggatat taaaaggcc tataggaac 300
 tagccctgca gcttcatccc gaccggaacc ctgatgatcc acaagccag 350
 gagaaattcc aggatctggg tgctgcttat gaggttctgt cagatagtga 400
 gaaacggaaa cagtacgata cttatggtga agaaggatta aaagatggtc 450
 atcagagctc ccatggagac attttttcac acttctttgg ggattttggt 500
 ttcatgtttg gaggaacccc tcgtcagcaa gacagaaata ttcaagagg 550
 aagtgatatt attgtagatc tagaagtcac tttggaagaa gtatatgcag 600
 gaaattttgt ggaagtagtt agaaacaaac ctgtggcaag gcaggtcctc 650
 ggcaaacgga agtgcaattg tcggcaagag atgcggacca ccagctggg 700
 cctggggcgc ttccaaatga ccagagggtt ggtctgcgac gaatgccta 750
 atgtcaaaact agtgaatgaa gaacgaacgc tggaaagtaga aatagagcct 800
 ggggtgagag acggcatgga gtaccccttt attggagaag gtgagcctca 850
 cgtggaatggg gagcctggag atttacgggt ccgaatcaaa gttgtcaagc 900
 acccaatatt tgaaggaga ggagatgatt tgtacacaaa tgtgacaatc 950
 tcattagtgt agtcactggt tggtcttgag atggatatta ctcaacttga 1000
 tggtcacaag gtacatatatt cccgggataa gatcaccagg ccaggagcga 1050
 agctatggaa gaaaggggaa gggctcccca actttgacaa caacaatata 1100
 aagggtcctt tgataatcac ttttgatgtg gatttttcaa aagaacagtt 1150
 aacagaggaa gcgagagaag gtatcaaaac gctactgaaa caagggtcag 1200
 tgcaagaagt atacaatgga ctgcaaggat attgagagtg aataaaattg 1250
 gactttgttt aaaataagtg aataagcgat atttattatc tgcaaggttt 1300
 ttttgtgtgt gtttttgttt ttattttcaa tatgcaagtt aggtctaatt 1350
 tttttatcta atgatcatca tgaaatgaat aagagggctt aagaatttgt 1400
 ccatttgcac tcggaaaaga atgaccagca aaaggtttac taatacctct 1450
 ccctttgggg atttaatgtc tgggtctgcc gcctgagttt caagaattaa 1500
 agctgcaaga ggactccagg agcaaaagaa acacaatata gagggtttga 1550
 gttgttagca atttcattca aaatgccaac tggagaagtc tgttttttaa 1600
 tacattttgt tgttattttt a 1621

<210> 148
 <211> 358
 <212> PRT

<213> Homo sapiens

<400> 148

Met Ala Pro Gln Asn Leu Ser Thr Phe Cys Leu Leu Leu Tyr
1 5 10 15
Leu Ile Gly Ala Val Ile Ala Gly Arg Asp Phe Tyr Lys Ile Leu
20 25 30
Gly Val Pro Arg Ser Ala Ser Ile Lys Asp Ile Lys Lys Ala Tyr
35 40 45
Arg Lys Leu Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp
50 55 60
Pro Gln Ala Gln Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Gly
65 70 75
Val Leu Ser Asp Ser Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly
80 85 90
Glu Glu Gly Leu Lys Asp Gly His Gln Ser Ser His Gly Asp Ile
95 100 105
Phe Ser His Phe Phe Gly Asp Phe Gly Phe Met Phe Gly Gly Thr
110 115 120
Pro Arg Gln Gln Asp Arg Asn Ile Pro Arg Gly Ser Asp Ile Ile
125 130 135
Val Asp Leu Glu Val Thr Leu Glu Glu Val Tyr Ala Gly Asn Phe
140 145 150
Val Glu Val Val Arg Asn Lys Pro Val Ala Arg Gln Ala Pro Gly
155 160 165
Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg Thr Thr Gln Leu
170 175 180
Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val Cys Asp Glu
185 190 195
Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu Glu Val
200 205 210
Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe Ile
215 220 225
Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
230 235 240
Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly
245 250 255
Asp Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu
260 265 270
Val Gly Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val
275 280 285
His Ile Ser Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp
290 295 300

Lys Lys Gly Glu Gly Leu Pro Asn Phe Asp Asn Asn Asn Ile Lys
 305 310
 Gly Ser Leu Ile Ile Thr Phe Asp Val Asp Phe Pro Lys Glu Gln
 320 325 330
 Leu Thr Glu Glu Ala Arg Glu Gly Ile Lys Gln Leu Leu Lys Gln
 335 340 345
 Gly Ser Val Gln Lys Val Tyr Asn Gly Leu Gln Gly Tyr
 350 355

<210> 149
 <211> 509
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> unsure
 <222> 34, 52, 134, 142, 155, 158, 196, 217, 228, 272, 347, 410, 445,
 482
 <223> unknown base

 <400> 149
 tgggaccagg gaaccccggtg ccccccggtg gagngcctaa caggcccggtg 50
 gntgcgaccg aagcgggcgg cggaggaggt tttgaggatt tttggaacag 100
 gaccgcgaca gaggaacat ggttccgcag aacntgagca cnttttgctt 150
 gttgntgnta tacttcatcg gggcggtgat tgcggacga gatttntata 200
 agattttggg gtgcctngaa gtgcctnta taaaggatat taaaaggccc 250
 tataggaaac tagccctgca gntttatccc gaccggaacc ctgatgatcc 300
 acaagcccag gagaaattcc aggatttggg tgctgcttat gaggttntgt 350
 cagatagtga gaaacggaaa cagtacgata attatggtga agaaggatta 400
 aaagatggtg atcagagctc ccatggagac attttttcac acttntttgg 450
 ggattttggt ttcattgttg gaggaacccc tngtcagcaa gacagaaata 500
 ttccaagag 509

 <210> 150
 <211> 1532
 <212> DNA
 <213> Homo sapiens

 <400> 150
 ggcacgaggc ggcggggcag tcgcgggatg cgcgggggag ccacagcctg 50
 aggcacctag gtctctgcag gtgtcgtgga ggaacctagc acctgccatc 100
 ctcttcccca atttgccact tccagcagct ttagcccatg aggagatgtt 150
 gaccgggact gagtgcaggag cctctggaa gcatggagac tgtggtgatt 200
 gttgcocatg gtgtgctggc caccatcttt ctggcttcgt ttgcagocct 250
 ggtgctggtt tgcaggcagc gctactgccg gccgcgagac ctgctgcagc 300

gctatgatto taagccatt gtggacctca ttggtgccat ggagaccag 350
 tctgagccct ctgagtaga actggacgat gtcgttatca ccaaccccc 400
 cattgaggcc attctggaga atgaagactg gatcgaagat gctctgggtc 450
 tcatgtocca ctgcattgcc atcttgaaga tttgtcacac tctgacagag 500
 aagctgtgtg ccatgacaat gggctctggg gccaaagatga agacttcagc 550
 cagtgtcagc gacatcattg ttgtggccaa gcgcatcagc cccagggttg 600
 atgatgttgt gaagtogatg taccctccgt tggaccccaa actcctggac 650
 gcacggacga ctgccctgct cctgtctgtc agtcacctgg tctgtgtgac 700
 aaggaatgcc tgccatctga cgggaggcct ggactggatt gaccagtctc 750
 tgctggctgc tgaggagcat ttggaagtcc ttcgagaagc agccctagct 800
 tctgagccag ataaaggcct cccaggccct gaaggcttcc tgcaggagca 850
 gtctgcaatt tagtgctac aggccagcag ctagccatga aggccctgc 900
 cgccatccct ggatggctca gcttagcctt ctacttttct ctatagagtt 950
 agttgttctc caccggctga gagttcagct gtgtgtgcat agtaaaagcag 1000
 gagatcccg tcagtttatg cctcttttgc agttgcaaac tgtgtgtgt 1050
 gagtggcagt ctaatactac agttagggga gatgccattc actctctgca 1100
 agaggagtat tgaaaaactg tggactgtca gctttattta gctcacctag 1150
 tgttttcaag aaaattgagc caccgtctaa gaaatcaaga ggtttcacat 1200
 taaaattaga atttctggcc tctctcgatc ggtcagaatg tgtggcaatt 1250
 ctgatctgca ttttcagaag aggacaatca attgaaacta agtaggggtt 1300
 tcttcttttg gcaagaactg tactctctca cctggcctgt ttcatttatt 1350
 tgtattatct gcttggtccc tgaggcgtct gggctctctc tctcccttgc 1400
 aggtttgggt ttgaagctga ggaactacaa agttgatgat ttctttttta 1450
 tctttatgcc tgcaatttta ctagctacc actaggtgga tagtaaat 1500
 atacttatgt ttccctcaaa aaaaaaaaaa aa 1532

<210> 151

<211> 226

<212> PRT

<213> Homo sapiens

<400> 151

Met	Glu	Thr	Val	Val	Ile	Val	Ala	Ile	Gly	Val	Leu	Ala	Thr	Ile
1				5					10				15	

Phe	Leu	Ala	Ser	Phe	Ala	Ala	Leu	Val	Leu	Val	Cys	Arg	Gln	Arg
			20					25					30	

Tyr	Cys	Arg	Pro	Arg	Asp	Leu	Leu	Gln	Arg	Tyr	Asp	Ser	Lys	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

atttgtatgc cttattggtt ggcctttgat aggcattgat ttcgaaattt 350
 atggattttt tctctgttgc aggggcttct ttcctgtcgt tgttggcttt 400
 attagaagag tgcagctcct tggatccctc ctaaatttac ctggaattag 450
 atcatttgta gataaagttg gagaagcaa caatatggta taacaacaag 500
 tgaatttgaa gactcattta aaatattgtg ttatttataa agtcatttga 550
 agaattattca gcacaaaatt aaattacatg aaatagcttg taatgttctt 600
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 aagaagcagt gaaaacaggc ttctactcaa gtgaactaag aagaagtcag 700
 caagcaaact gagagaggtg aaatccatgt taatgatgct taagaaactc 750
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 ttagagaact gtggtgcctg tttcttttct ttttattttg aaggctcagg 850
 agcatccata ggcatttgc ttttagaagt gtccactgca atggcaaaaa 900
 tatttccagt tgcactgtat ctctggaagt gatgcatgaa ttcgatttga 950
 ttgtgtcatt ttaaagtatt aaaaccaagg aaaccccaat tttgatgtat 1000
 ggattacttt tttttngcn cagggcc 1027

<210> 153
 <211> 138
 <212> PRT
 <213> Homo sapiens

<220>
 <221> N-myristoylation Sites
 <222> 11-16, 51-56 and 116-121
 <223> N-myristoylation Sites.

<220>
 <221> Transmembrane domains
 <222> 12-30, 33-52, 69-89 and 93-109
 <223> Transmembrane domains

<220>
 <221> Aminoacyl-transfer RNA Synthetases.
 <222> 49-59
 <223> Aminoacyl-transfer RNA synthetases class-II protein.

<400> 153

Met	Ile	Ser	Leu	Thr	Asp	Thr	Gln	Lys	Ile	Gly	Met	Gly	Leu	Thr
1				5					10				15	
Gly	Phe	Gly	Val	Phe	Phe	Leu	Phe	Phe	Gly	Met	Ile	Leu	Phe	Phe
			20						25				30	
Asp	Lys	Ala	Leu	Leu	Ala	Ile	Gly	Asn	Val	Leu	Phe	Val	Ala	Gly
			35						40				45	
Leu	Ala	Phe	Val	Ile	Gly	Leu	Glu	Arg	Thr	Phe	Arg	Phe	Phe	Phe
			50						55				60	

Gln Lys His Lys Met Lys Ala Thr Gly Phe Phe Leu Gly Gly Val
65 70 75
Phe Val Val Leu Ile Gly Trp Pro Leu Ile Gly Met Ile Phe Glu
80 85 90
Ile Tyr Gly Phe Phe Leu Leu Phe Arg Gly Phe Phe Pro Val Val
95 100 105
Val Gly Phe Ile Arg Arg Val Pro Val Leu Gly Ser Leu Leu Asn
110 115 120
Leu Pro Gly Ile Arg Ser Phe Val Asp Lys Val Gly Glu Ser Asn
125 130 135
Asn Met Val

<210> 154
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 66
<223> unknown base

<400> 154
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actcagcttc ccacntggg ctttccgagg tgctttcgcc gctgtcccca 100
ccactgcagc catgatctcc ttaacggaca cgcagaaaat tggaatggga 150
ttaaccggat ttggagtgtt ttctctgttc ttggaatga ttctcttttt 200
tgacaaagca ctactggcta ttggaaatgt tttatttgta gccggcttgg 250
cttttgtaat tgggttagaa agaacattca gattcttctt ccaaaaacat 300
aaaatgaaag ctacagggtt ttttctgggt ggtgtatttg tagtccttat 350
tggttgccct ttgataggca tgatcttcca aatttatgga tttttctct 400
tgttc 405

<210> 155
<211> 1781
<212> DNA
<213> Homo sapiens

<400> 155
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tttcttctt ctggaaatct ttgactgtgg gtatttatt atttctgaat 150
aagagcgtcc acgcatcatg gacctcgcg gactgctgaa gtctcagttc 200
ctgtgccacc tggcttctg ctacgtcttt attgcctcag ggctaatacat 250

caacaccatt cagctcttca ctctcctcct ctggccatt aacaagcagc 300
 tcttcoggaa gatcaactgc agactgtcct attgcatctc aagccagctg 350
 gtgatgtctg tggagtgttg gtcgggcaagc gaatgcacca tcttcacgga 400
 cccgcgcgcc tacctcaagt atgggaagga aaatgccatc gtggttctca 450
 accacaagtt tgaattgac tttctgtgtg gctggagcct gtcgaacgc 500
 tttgggtgtg tagggggctc caaggtcctg gccaaagaa agctggccta 550
 tgtccaatt atcggtgga tgtgtactt caccgagatg gtcttctgtt 600
 cgcgcaagtg ggagcaggat cgcaagacgg ttgccaccag tttgcagcac 650
 ctccgggact accccgagaa gtattttttc ctgattcact gtgagggcac 700
 acggttcacg gagaagaagc atgagatcag catgcagggtg gcccgggcca 750
 aggggtgtcc tcgcctcaag catcacctgt tgccacgaac caagggcttc 800
 gccatcacgc tgaggagctt gagaatgta gtttcagctg tatatgactg 850
 tacactcaat ttcagaaata atgaaaatcc aacctgtctg ggagtcccta 900
 acggaaaagaa ataccatgca gatttgtatg ttaggaggat cccactggaa 950
 gacatccctg aagacgatga cagtgctcgc gcctggctgc acaagctcta 1000
 ccaggagaag gatgcctttc agggaggatg ctacaggacg ggcaccttcc 1050
 cagagacgcc catggtgcc ccccgggcgc cctggaccct cgtgaactgg 1100
 ctgttttggg cctcgtgtgt gctctaccct ttcttcagtg tcttggtcag 1150
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 tctttgtggc ctccgtggga gttcgtgga tgattggtgt gacggaaatt 1250
 gacaagggtc ctgcctacgc caactctgac agcaagcaga aactgaatga 1300
 ctgactcagg gaggtgtcac catccgaagg gaaccttggg gaactggttg 1350
 cctctgcata tctccttag tgggacacgc tgacaaaggc tgggtgagcc 1400
 cctgtctggc acggcggaag tcacgacctc tccagccagg gactctgtgc 1450
 tcaaggccgc atggggagga agatgttttg taatcttttt ttccccatgt 1500
 gcttttagtg gctttggtt tctttttgtg cagtggtgtg tgagaatggc 1550
 tgtgtgtgta gttggaactt tgttctgtga tcatagaaag ggtatttttag 1600
 gctgcagggg agggcagggc tggggaccca aggggacaag ttcccttttc 1650
 atcctttggt gctgagtttt ctgtaaccct tggttgccag agataaagtg 1700
 aaaagtgcct taggtgagat gactaaatta tgctccaag aaaaaaaaaa 1750
 taaagtgcct ttctgggtca aaaaaaaaaa a 1781

<210> 156

<211> 378
 <212> PRT
 <213> Homo sapiens

<400> 156

Met	Asp	Leu	Ala	Gly	Leu	Leu	Lys	Ser	Gln	Phe	Leu	Cys	His	Leu	1	5	10	15
Val	Phe	Cys	Tyr	Val	Phe	Ile	Ala	Ser	Gly	Leu	Ile	Ile	Asn	Thr	20	25	30	
Ile	Gln	Leu	Phe	Thr	Leu	Leu	Leu	Trp	Pro	Ile	Asn	Lys	Gln	Leu	35	40	45	
Phe	Arg	Lys	Ile	Asn	Cys	Arg	Leu	Ser	Tyr	Cys	Ile	Ser	Ser	Gln	50	55	60	
Leu	Val	Met	Leu	Leu	Glu	Trp	Trp	Ser	Gly	Thr	Glu	Cys	Thr	Ile	65	70	75	
Phe	Thr	Asp	Pro	Arg	Ala	Tyr	Leu	Lys	Tyr	Gly	Lys	Glu	Asn	Ala	80	85	90	
Ile	Val	Val	Leu	Asn	His	Lys	Phe	Glu	Ile	Asp	Phe	Leu	Cys	Gly	95	100	105	
Trp	Ser	Leu	Ser	Glu	Arg	Phe	Gly	Leu	Leu	Gly	Gly	Ser	Lys	Val	110	115	120	
Leu	Ala	Lys	Lys	Glu	Leu	Ala	Tyr	Val	Pro	Ile	Ile	Gly	Trp	Met	125	130	135	
Trp	Tyr	Phe	Thr	Glu	Met	Val	Phe	Cys	Ser	Arg	Lys	Trp	Glu	Gln	140	145	150	
Asp	Arg	Lys	Thr	Val	Ala	Thr	Ser	Leu	Gln	His	Leu	Arg	Asp	Tyr	155	160	165	
Pro	Glu	Lys	Tyr	Phe	Phe	Leu	Ile	His	Cys	Glu	Gly	Thr	Arg	Phe	170	175	180	
Thr	Glu	Lys	Lys	His	Glu	Ile	Ser	Met	Gln	Val	Ala	Arg	Ala	Lys	185	190	195	
Gly	Leu	Pro	Arg	Leu	Lys	His	His	Leu	Leu	Pro	Arg	Thr	Lys	Gly	200	205	210	
Phe	Ala	Ile	Thr	Val	Arg	Ser	Leu	Arg	Asn	Val	Val	Ser	Ala	Val	215	220	225	
Tyr	Asp	Cys	Thr	Leu	Asn	Phe	Arg	Asn	Asn	Glu	Asn	Pro	Thr	Leu	230	235	240	
Leu	Gly	Val	Leu	Asn	Gly	Lys	Lys	Tyr	His	Ala	Asp	Leu	Tyr	Val	245	250	255	
Arg	Arg	Ile	Pro	Leu	Glu	Asp	Ile	Pro	Glu	Asp	Asp	Asp	Glu	Cys	260	265	270	
Ser	Ala	Trp	Leu	His	Lys	Leu	Tyr	Gln	Glu	Lys	Asp	Ala	Phe	Gln	275	280	285	
Glu	Glu	Tyr	Tyr	Arg	Thr	Gly	Thr	Phe	Pro	Glu	Thr	Pro	Met	Val				

290	295	300
Pro Pro Arg Arg	Pro Trp Thr Leu Val Asn Trp Leu Phe Trp Ala	
305	310	315
Ser Leu Val Leu	Tyr Pro Phe Phe Gln Phe Leu Val Ser Met Ile	
320	325	330
Arg Ser Gly Ser	Ser Leu Thr Leu Ala Ser Phe Ile Leu Val Phe	
335	340	345
Phe Val Ala Ser	Val Gly Val Arg Trp Met Ile Gly Val Thr Glu	
350	355	360
Ile Asp Lys Gly	Ser Ala Tyr Gly Asn Ser Asp Ser Lys Gln Lys	
365	370	375
Leu Asn Asp		

<210> 157
 <211> 1849
 <212> DNA
 <213> Homo sapiens

<400> 157
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 gctttgtgct cggcgcactc gctttccagc acctcaacac ggaactcggac 100
 acggaaggtt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150
 tactgattcc caaatggatg atgttgaaat tgtttatatac attgacattc 200
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
 gaagtaaatg agcaagcact gaagaaaaa ttatcaaatg tcaaaaagaa 300
 tgtggtaggt tggtaacaaat tccgtcgtca ttcagatcag atcatgacgt 350
 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccaa 400
 gacctgtttt ttctgctatt aacaccaagt ataataacag aaagctgtctc 450
 tactcatcga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
 acagggtacc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550
 tataaaactg tatcaggttc ctgtatgtcc actggtttta gccgagcagt 600
 acaaacacac agctctaat tttttgaaga agatggatcc ttaaggagg 650
 tacataagat aaatgaaatg tatgcttcat tacaagagga attaaagagt 700
 atatgcaaaa aagtgaaga cagtgaacaa gcagtagata aactagtaaa 750
 ggatgtaaac agattaaaac gagaattga gaaaaggaga ggagcacaga 800
 ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850
 ttctttgtc aggcattacg gacctttttt ccaaattctg aattttctca 900
 ttcattgtgt atgtctttaa aaaatagaca tgtttctaaa agtagctgta 950

actacaacca ccatctcgat gtagtagaca atctgacctt aatggtagaa 1000
cacactgaca ttctggaagc tagtccagct agtacaccac aaatcattaa 1050
gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggt 1100
tgttagatac acaagacaaa cgatctaaag caaatactgg tagtagtaac 1150
caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200
aaagatgaag ggttttggtg aatattcacg gtctcctaca ttttgatcct 1250
tttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300
atttctattg tttttactat gttgagctac ttgcagtaag ttcatttggt 1350
tttactatgt tcacctgttt gcagtaatac acagataaact cttagtgcac 1400
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tttttttcac ctttactaa gttgttgagg ggaaggctta cacagacaca 1500
ttctttgaa ttggaaaagt gagaccaggc acagtggctc acacctgtaa 1550
tccagcact tagggaagac aagtcaggag gattgattga agctaggagt 1600
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tgaaaattta tctgagtcac taaaaattct ctttaagtgt acttttttag 1750
aagtacatta tggctagagt tgccagataa aatgctggat atcatgcaat 1800
aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 158
<211> 409
<212> PRT
<213> Homo sapiens

<400> 158
Met Glu Gly Glu Ser Thr Ser Ala Val Leu Ser Gly Phe Val Leu
1 5 10 15
Gly Ala Leu Ala Phe Gln His Leu Asn Thr Asp Ser Asp Thr Glu
20 25 30
Gly Phe Leu Leu Gly Glu Val Lys Gly Glu Ala Lys Asn Ser Ile
35 40 45
Thr Asp Ser Gln Met Asp Asp Val Glu Val Val Tyr Thr Ile Asp
50 55 60
Ile Gln Lys Tyr Ile Pro Cys Tyr Gln Leu Phe Ser Phe Tyr Asn
65 70 75
Ser Ser Gly Glu Val Asn Glu Gln Ala Leu Lys Lys Ile Leu Ser
80 85 90
Asn Val Lys Lys Asn Val Val Gly Trp Tyr Lys Phe Arg Arg His
95 100 105

Ser Asp Gln Ile	Met Thr Phe Arg Glu Arg	Leu Leu His Lys Asn
110	115	120
Leu Gln Glu His	Phe Ser Asn Gln Asp	Leu Val Phe Leu Leu Leu
125	130	135
Thr Pro Ser Ile	Ile Thr Glu Ser Cys Ser Thr His Arg Leu Glu	150
140	145	
His Ser Leu Tyr	Lys Pro Gln Lys Gly Leu Phe His Arg Val Pro	165
155	160	
Leu Val Val Ala	Asn Leu Gly Met Ser Glu Gln Leu Gly Tyr Lys	180
170	175	
Thr Val Ser Gly	Ser Cys Met Ser Thr Gly Phe Ser Arg Ala Val	195
185	190	
Gln Thr His Ser	Ser Lys Phe Phe Glu Glu Asp Gly Ser Leu Lys	210
200	205	
Glu Val His Lys	Ile Asn Glu Met Tyr Ala Ser Leu Gln Glu Glu	225
215	220	
Leu Lys Ser Ile	Cys Lys Lys Val Glu Asp Ser Glu Gln Ala Val	240
230	235	
Asp Lys Leu Val	Lys Asp Val Asn Arg Leu Lys Arg Glu Ile Glu	255
245	250	
Lys Arg Arg Gly	Ala Gln Ile Gln Ala Ala Arg Glu Lys Asn Ile	270
260	265	
Gln Lys Asp Pro	Gln Glu Asn Ile Phe Leu Cys Gln Ala Leu Arg	285
275	280	
Thr Phe Phe Pro	Asn Ser Glu Phe Leu His Ser Cys Val Met Ser	300
290	295	
Leu Lys Asn Arg	His Val Ser Lys Ser Ser Cys Asn Tyr Asn His	315
305	310	
His Leu Asp Val	Val Asp Asn Leu Thr Leu Met Val Glu His Thr	330
320	325	
Asp Ile Pro Glu	Ala Ser Pro Ala Ser Thr Pro Gln Ile Ile Lys	345
335	340	
His Lys Ala Leu	Asp Leu Asp Asp Arg Trp Gln Phe Lys Arg Ser	360
350	355	
Arg Leu Leu Asp	Thr Gln Asp Lys Arg Ser Lys Ala Asn Thr Gly	375
365	370	
Ser Ser Asn Gln	Asp Lys Ala Ser Lys Met Ser Ser Pro Glu Thr	390
380	385	
Asp Glu Glu Ile	Glu Lys Met Lys Gly Phe Gly Glu Tyr Ser Arg	405
395	400	
Ser Pro Thr Phe		

<210> 159
<211> 2651
<212> DNA
<213> Homo sapiens

<400> 159
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cgccgcccac accctctgcg gtcccgcggg cgcttgcacc ccttccctcc 150
ttcccgcgct ccccgctcgc ccggccagtc agcttgccgg gttcgctgcc 200
ccgcgaaacc ccgaggtcac cagcccgccg ctctgcttcc ctggcgccgg 250
cgccgctcc acgcccctct tctcccctgg cccggcgccct ggcaccgggg 300
accgttgctt gacgcgaggc ccagctctac ttttcgcccc gcgtctcctc 350
cgcttgctcg cctcttccac caactccaac tccttctccc tccagctcca 400
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ttcccgctcg gtcccaaagg tgggaacgcg tccgccccgg ccgcaccat 500
ggcacgggtc ggcttgcccg cgcttctctg caccctggga gtgctcagcg 550
ccgcgctgct ggctgcccag ctcaagtcga aaagtgtgct ggaagtgcga 600
cgtctttacg tgtccaaagg cttcaacaag aacgatgccc cctccacga 650
gatcaacggt gatcattga agatctgtcc ccagggttct acctgctgct 700
ctcaagagat ggaggagaag tacagcctcg aaagtaaaga tgatttcaaa 750
agtgtgtgca ggaacagtg caatcatttg caagctgtct ttgcttcacg 800
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aatccctgaa tgatagtgtt gtgaagacat atggccattt atacatgcaa 900
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tcctggagcg gatgttcgcg ctggtgaact ccagtagcca ctttacagat 1050
gagtatctgg aatgtgtgag caagtatacg gacgagctga agcccttcgg 1100
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cccgtacttt cgctcaaggc ttacgcggtg cgggagatgt cgtgagcaag 1200
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actactgctc aaacatcatg agaggctgtt tggccaacca aggggatctc 1350
gattttgaat ggaacaattt catagatgct atgctgatgg tggcagagag 1400
gctagagggt cctttcaaca ttgaatcggt catggatccc atcgatgtga 1450

agatttctga tgctattatg aacatgcagg ataatagtgt tcaagtgtct 1500
 cagaagggtt tccagggatg tggaccccc aagccccctc cagctggacg 1550
 aatttctcgt tccatctctg aaagtgcctt cagtgtctgc ttcagaccac 1600
 atcccccgga ggaacgcccc accacagcag ctggcactag tttggaccga 1650
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 ctcccttcgg agcaacgttt gcaacgatga gaggtgggtg gcaggaaacg 1750
 gcaatgagga tgactgttgg aatgggaaag gcaaaagcag gtacctgttt 1800
 gcagtgcag gaaatggatt agccaaccag ggcaacaacc cagaggtcca 1850
 ggttgacacc agcaaaaccag acatactgat ccttcgtcaa atcatggctc 1900
 ttcgagtgat gaccagcaag atgaagaatg catacaatgg gaacgacgtg 1950
 gactctcttg atatcagtga tgaaagtagt ggagaaggaa gtggaagtgg 2000
 ctgtgagtat cagcagtgcc cttcagagtt tgactacaat gccactgacc 2050
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 actgtgcatt gagttgggtc ctgctcccc aaaccatgtt aaacgtggct 2400
 aacagtgtag gtacagaact atagttagtt gtgcatttgt gattttatca 2450
 ctctattatt tgtttgatg tttttttctc atttcgtttg tgggtttttt 2500
 tttccaactg tgatctcgcc ttgtttctta caagcaaacc agggctccct 2550
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 c 2651

<210> 160

<211> 556

<212> PRT

<213> Homo sapiens

<400> 160

Met Ala Arg Phe Gly Leu Pro Ala Leu Leu Cys Thr Leu Ala Val
 1 5 10 15

Leu Ser Ala Ala Leu Leu Ala Ala Glu Leu Lys Ser Lys Ser Cys
 20 25 30

Ser Glu Val Arg Arg Leu Tyr Val Ser Lys Gly Phe Asn Lys Asn

350	355	360
Phe Ser Ala Arg	Phe Arg Pro His His	Pro Glu Glu Arg Pro Thr
365	370	375
Thr Ala Ala Gly	Thr Ser Leu Asp Arg	Leu Val Thr Asp Val Lys
380	385	390
Glu Lys Leu Lys	Gln Ala Lys Lys Phe	Trp Ser Ser Leu Pro Ser
395	400	405
Asn Val Cys Asn	Asp Glu Arg Met Ala	Ala Gly Asn Gly Asn Glu
410	415	420
Asp Asp Cys Trp	Asn Gly Lys Gly Lys	Ser Arg Tyr Leu Phe Ala
425	430	435
Val Thr Gly Asn	Gly Leu Ala Asn Gln	Gly Asn Asn Pro Glu Val
440	445	450
Gln Val Asp Thr	Ser Lys Pro Asp Ile	Leu Ile Leu Arg Gln Ile
455	460	465
Met Ala Leu Arg	Val Met Thr Ser Lys	Met Lys Asn Ala Tyr Asn
470	475	480
Gly Asn Asp Val	Asp Phe Phe Asp Ile	Ser Asp Glu Ser Ser Gly
485	490	495
Glu Gly Ser Gly	Ser Gly Cys Glu Tyr	Gln Gln Cys Pro Ser Glu
500	505	510
Phe Asp Tyr Asn	Ala Thr Asp His Ala	Gly Lys Ser Ala Asn Glu
515	520	525
Lys Ala Asp Ser	Ala Gly Val Arg Pro	Gly Ala Gln Ala Tyr Leu
530	535	540
Leu Thr Val Phe	Cys Ile Leu Phe Leu	Val Met Gln Arg Glu Trp
545	550	555

Arg

<210> 161
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 161
 ctccgtgcta aaccccacag ccc 23

<210> 162
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 162
tcacatcgat gggatccatg accg 24

<210> 163
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 163
ggctctcgta ctgtgaagcc atgttacaac tactgtctcaa acatcatgag 50

<210> 164
<211> 870
<212> DNA
<213> Homo sapiens

<400> 164
ctcgccctca aatgggaacg ctggcctggg actaaagcat agaccaccag 50
gctgagtagt ctgacctgag tcatcccag ggatcaggag cctccagcag 100
ggaaccttcc attatatct tcaagcaact tacagctgca ccgacagtgt 150
cgatgaaagt tctaattct tccctcctcc tgttgctgcc actaatgctg 200
atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250
ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300
gtgagtgcga agattgggtc ctgagagccc cgagaagaaa attcatgaca 350
gtgtctgggc tgccaaagaa gcagtgcgcc tgtgatcatt tcaagggcaa 400
tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450
ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagcttttgt 500
ctgcctttgt aggagctctg agcgcccact ctccaatta aacatttcca 550
gccaagaaga cagtgcagac acctaccaga cactcttctt ctcccaccct 600
actctcccac tgtaccacc cctaatacat tccagtgtct tcaaaaagca 650
tgtttttcaa gatcattttg tttgttgctc tctctagtgt cttcttctct 700
cgtcagtcct agcctgtgcc ctccccttac ccaggcttag gcttaattac 750
ctgaaagatt ccaggaaact gtagcttctt agctagtgtc atttaacott 800
aaatgcaatc aggaaagtag caaacagaag tcaataaata tttttaaatg 850
tcaaaaaaaaa aaaaaaaaaa 870

<210> 165
<211> 119
<212> PRT
<213> Homo sapiens

<400> 165
Met Lys Val Leu Ile Ser Ser Leu Leu Leu Leu Leu Pro Leu Met

1	5	10	15
Leu Met Ser Met Val Ser Ser Ser Leu Asn Pro Gly Val Ala Arg	20	25	30
Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu	35	40	45
Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro	50	55	60
Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys Gln Cys	65	70	75
Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His Gln	80	85	90
Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln	95	100	105
Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu	110	115	

<210> 166
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 166
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 ccagacgact cgggcaaaga cccaaagcca gacttcccca aattcctaag 150
 cctcctgggc acagagatca ttgagaatgc agtcgagttc atcctccgct 200
 ccatgtccag gagcacagga tttatggaat ttgatgataa tgaaggaaaa 250
 cattcatcaa agtgacatcc tcaggacaca cccatgtggc tcctggacaa 300
 tccaagagca gccaaatcct gcttttccag tttggctcca caagtcctcc 350
 aggacagagc cctcaaagca actcccaacg agttctcagg attcaggctc 400
 tggcttcaac caaacagaac tcattttgaa caccctgact gcatttttgc 450
 ttttagaaaag ttagaataaa tatggcgctt tgggatcaca tagttgatgg 500
 agaggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
 a 551

<210> 167
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 167
 Met Ala Val Leu Val Leu Arg Leu Thr Val Val Leu Gly Leu Leu
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 Val Leu Phe Leu Thr Cys Tyr Ala Asp Asp Lys Pro Asp Lys Pro

Asp Asp Lys Pro Asp Asp Ser Gly Lys Asp Pro Lys Pro Asp Phe
 35 40 45
 Pro Lys Phe Leu Ser Leu Leu Gly Thr Glu Ile Ile Glu Asn Ala
 50 55 60
 Val Glu Phe Ile Leu Arg Ser Met Ser Arg Ser Thr Gly Phe Met
 65 70 75
 Glu Phe Asp Asp Asn Glu Gly Lys His Ser Ser Lys
 80 85

<210> 168
 <211> 1371
 <212> DNA
 <213> Homo sapiens

<400> 168
 ggacgccagc gctgcagag gctgagcagc gaaaaagcca gtgccccagc 50
 ggaagcacag ctcagagctg gtctgccatg gacatcctgg tcccactcct 100
 gcagctgctg gtgctgcttc ttaccctgcc cctgcaccto atggctctgc 150
 tgggctgctg gcagcccctg tgcaaaagct acttccccta cctgatggcc 200
 gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250
 cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300
 tggagctggg ctgcggaacc ggagccaact ttcagtctta cccaccgggc 350
 tgcaggggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400
 aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggttg 450
 ctcttgagga ggacatgaga cagctggctg atggctccat ggatgtggtg 500
 gtctgcactc tgggtgctgt ctctgtgcag agcccaagga aggtctctga 550
 ggaggtccgg agagtactga gaccgggagg tgtgctcttt ttctgggagc 600
 atgtggcaga accatatgga agctgggcct tcatgtggca gcaagttttc 650
 gagcccacct gaaacacat tggggatggc tgctgcctca ccagagagac 700
 ctggaaggat cttgagaacg ccaggttctc cgaatcccaa atggaacgac 750
 agccccctcc cttgaagtgg ctacctgttg ggccccacat catgggaaag 800
 gctgtcaaac aatctttccc aagctccaag gcaactcatt gctccttccc 850
 cagcctccaa ttagaacaag ccaccacca gcctatctat ctccactga 900
 gaggggaccta gcgaatgag agaagacatt catgtaccac ctactagtcc 950
 ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgcttcc 1000
 gacagtgaag aagctctact totacgctga cccagggagg aaacactagg 1050
 accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100

gcctcccaat gttgtccctt tccttcgttc ccattggtaaa gctcctctcg 1150
 ctttcctcct gaggtctaac ccattgcgtct ctagggaactg gtcacaaaag 1200
 tcatggtgcc tgcattccctg ccaagccccc ctgacctctc ctccccaacta 1250
 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300
 atgccagagc aagactcaaa gaggcagagg tttgtttctc aaatattttt 1350
 taataaatag acgaaaccac g 1371

<210> 169
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 169
 Met Asp Ile Val Pro Leu Leu Gln Leu Leu Val Leu Leu Leu
 1 5 10 15
 Thr Leu Pro Leu His Leu Met Ala Leu Leu Gly Cys Trp Gln Pro
 20 25 30
 Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu Thr Pro
 35 40 45
 Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe Ser
 50 55 60
 Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Lys
 65 70 75
 Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro
 80 85 90
 Gly Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys
 95 100 105
 Phe Leu Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu
 110 115 120
 Arg Phe Val Val Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp
 125 130 135
 Gly Ser Met Asp Val Val Val Cys Thr Leu Val Leu Cys Ser Val
 140 145 150
 Gln Ser Pro Arg Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg
 155 160 165
 Pro Gly Gly Val Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr
 170 175 180
 Gly Ser Trp Ala Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp
 185 190 195
 Lys His Ile Gly Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys
 200 205 210
 Asp Leu Glu Asn Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln
 215 220 225

Pro Pro Pro Leu Lys Trp Leu Pro Val Gly Pro His Ile Met Gly
 230 235
 Lys Ala Val Lys Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys
 245 250 255
 Ser Phe Pro Ser Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile
 260 265 270
 Tyr Leu Pro Leu Arg Gly Thr
 275

<210> 170
 <211> 1621
 <212> DNA
 <213> Homo sapiens

<400> 170
 gtgggattta tttgagtgc agatcgtttt ctcagtggtg gtggaagttg 50
 cctcatcgca ggcagatgtt ggggctttgt ccgaacagct cccctctgcc 100
 agcttctgta gataagggtt aaaaactaat atttatatga cagaagaaaa 150
 agatgtcatt ccgtaaagta aacatcatca tcttggtcct ggcgtgtgct 200
 ctctctctac tggttttgca ccataacttc ctcagcttga gcagtttggt 250
 aagggaatgag gttacagatt caggaattgt agggcctcaa cctatagact 300
 ttgtcccaaa tgctctccga catgcagtag atgggagaca agaggagatt 350
 cctgtgtgca tcgctgcac tgaagacagg cttggggggg ccattgcagc 400
 tataaacagc attcagcaca aacctcgtc caatgtgatt ttctacattg 450
 ttactctcaa caatacagca gaccatctcc ggtcctggct caacagtgat 500
 tccttgaaaa gcactagata caaaattgtc aattttgacc ctaaaacttt 550
 ggaaggaaaa gtaaaggagg atcctgacca gggggaatcc atgaaacctt 600
 taacctttgc aaggttctac ttgccaatcc tgggtcccag cgcaagaaga 650
 gccatataca tggatgatga tgtaattgtg caagggtgata ttcttgccct 700
 ttacaataca gcaactgaagc caggacatgc agctgcattt tcagaagatt 750
 gtgattcagc ctctactaaa gttgtcatcc gtggagcagg aaaccagtac 800
 aattacattg gctatcttga ctataaaaag gaaagaattc gtaagctttc 850
 catgaaagcc agcacttgct catttaatcc tggagttttt gttgcaaac 900
 tgacggaatg gaaacgacag aatataacta accaactgga aaaatggatg 950
 aaactcaatg tagaagaggg actgtatagc agaaccctgg ctggtagcat 1000
 cacacacact cctctgctta tcgtatttta toaacagcac tctaccatcg 1050
 atcctatgtg gaatgtccgc caccttggtt ccagtgtcgg aaaacgatat 1100
 tcacctcagt ttgtaaaggc tgccaagtta ctccattgga atggacattt 1150

gaagccatgg ggaaggactg cttcatatac tgatgtttgg gaaaaatggt 1200
 atattccaga cccaacaggc aaattcaacc taatccgaag atataccgag 1250
 atctcaaaca taaagtgaag cagaatttga actgtaagca agcattttctc 1300
 aggaagtctc ggaagatagc atgcatggga agtaacagtt gctaggcttc 1350
 aatgcctatc ggtagcaagc catggaaaaa gatgtgtcag ctaggtaaag 1400
 atgacaaact gccctgtctg gcagtcagct tcccagacag actatagact 1450
 ataaatatgt ctccatctgc cttaccaagt gttttcttac tacaatgctg 1500
 aatgactgga aagaagaact gatatggcta gttcagctag ctggtacaga 1550
 taattcaaaa ctgctgttgg ttttaatttt gtaacctgtg gcctgatctg 1600
 taaataaaac ttacattttt c 1621

<210> 171
 <211> 371
 <212> PRT
 <213> Homo sapiens

<400> 171
 Met Ser Phe Arg Lys Val Asn Ile Ile Ile Leu Val Leu Ala Val
 1 5 10 15
 Ala Leu Phe Leu Leu Val Leu His His Asn Phe Leu Ser Leu Ser
 20 25 30
 Ser Leu Leu Arg Asn Glu Val Thr Asp Ser Gly Ile Val Gly Pro
 35 40 45
 Gln Pro Ile Asp Phe Val Pro Asn Ala Leu Arg His Ala Val Asp
 50 55 60
 Gly Arg Gln Glu Glu Ile Pro Val Val Ile Ala Ala Ser Glu Asp
 65 70 75
 Arg Leu Gly Gly Ala Ile Ala Ala Ile Asn Ser Ile Gln His Asn
 80 85 90
 Thr Arg Ser Asn Val Ile Phe Tyr Ile Val Thr Leu Asn Asn Thr
 95 100 105
 Ala Asp His Leu Arg Ser Trp Leu Asn Ser Asp Ser Leu Lys Ser
 110 115 120
 Ile Arg Tyr Lys Ile Val Asn Phe Asp Pro Lys Leu Leu Glu Gly
 125 130 135
 Lys Val Lys Glu Asp Pro Asp Gln Gly Glu Ser Met Lys Pro Leu
 140 145 150
 Thr Phe Ala Arg Phe Tyr Leu Pro Ile Leu Val Pro Ser Ala Lys
 155 160 165
 Lys Ala Ile Tyr Met Asp Asp Asp Val Ile Val Gln Gly Asp Ile
 170 175 180
 Leu Ala Leu Tyr Asn Thr Ala Leu Lys Pro Gly His Ala Ala Ala

185	190	195
Phe Ser Glu Asp Cys Asp Ser Ala Ser Thr Lys Val Val Ile Arg		
200	205	210
Gly Ala Gly Asn Gln Tyr Asn Tyr Ile Gly Tyr Leu Asp Tyr Lys		
215	220	225
Lys Glu Arg Ile Arg Lys Leu Ser Met Lys Ala Ser Thr Cys Ser		
230	235	240
Phe Asn Pro Gly Val Phe Val Ala Asn Leu Thr Glu Trp Lys Arg		
245	250	255
Gln Asn Ile Thr Asn Gln Leu Glu Lys Trp Met Lys Leu Asn Val		
260	265	270
Glu Glu Gly Leu Tyr Ser Arg Thr Leu Ala Gly Ser Ile Thr Thr		
275	280	285
Pro Pro Leu Leu Ile Val Phe Tyr Gln Gln His Ser Thr Ile Asp		
290	295	300
Pro Met Trp Asn Val Arg His Leu Gly Ser Ser Ala Gly Lys Arg		
305	310	315
Tyr Ser Pro Gln Phe Val Lys Ala Ala Lys Leu Leu His Trp Asn		
320	325	330
Gly His Leu Lys Pro Trp Gly Arg Thr Ala Ser Tyr Thr Asp Val		
335	340	345
Trp Glu Lys Trp Tyr Ile Pro Asp Pro Thr Gly Lys Phe Asn Leu		
350	355	360
Ile Arg Arg Tyr Thr Glu Ile Ser Asn Ile Lys		
365	370	

<210> 172
 <211> 585
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 71, 76, 86, 91, 162, 220, 269, 281
 <223> unknown base

<400> 172
 tgggtttttgc ccataaatt cctcagctt gagcagtttg ttaaggaatg 50
 aggttacaga ttcaggaatt ntagnnctc aacctntaga ntttgtccca 100
 aatgtttctc gacatgcagt agatgggaga caagaggaga ttcttgttgt 150
 catcgctgca tntgaagaca ggcttggggg ggccattgca gctataaaca 200
 gcatcagca caacactcgn tccaatgtga ttttctacat tgttactctc 250
 aacaatacag cagaccatnt ccggtccttg ntcaacagtg attccctgaa 300
 aagcatcaga tacaaaaattg tcaattttga ccctaaactt ttggaaggaa 350

aagtaaagga ggatcctgac cagggggaat ccatgaaacc tttaaccttt 400
gcaagggtct acttgccaat tctgggtccc agcgcaaaga aggccatata 450
catggatgat gatgtaattg tgcaaggtga tattcttgcc ctttacaata 500
cagcactgaa gccaggacat gcagctgcat tttcagaaga ttgtgatcca 550
gcctctacta aagttgtcat cgtgggagca ggaaa 585

<210> 173
<211> 1866
<212> DNA
<213> Homo sapiens

<400> 173
cgacgctcta gcggttacgc ctgcgggctg gctgggcgta gtggggctgc 50
gcggctgcca cggagctaga gggcaagtgt gctcgcccca gcgtgcaggg 100
aacgcgggcg gccagacaac gggctgggct ccggggcctg cggcgcgggc 150
gctgagctgg cagggcgggt cggggcgcgg gctgcatccg catctcctcc 200
atcgctgca gtaagggcgg ccgcggcgag cctttgaggg gaacgacttg 250
tcggagccct aaccaggggt gtctctgagc ctgggtggat ccccgagcgg 300
tcacatcact ttccgatcac ttcaaagtgg ttaaaaaacta atatattata 350
gacagaagaa aaagatgtca ttccgtaaa gtaaacatcat catcttggtc 400
ctgggctggt gctctcttct tactgggttt gcaccataac ttctcagct 450
tgaggcagtt tgtaaggaa tgaggttaca gattcaggaa ttgtagggcc 500
toaacctata ggactttgtc ccaaatgtcc tccgacatgc agtagatggg 550
agacaagagg agattcctgt ggtcatcgct gcattctgaag acaggcttgg 600
gggggccatt gcagctataa acagcattca gcacaacact cgtcccaatg 650
tgattttcta cattgttact ctcaacaata cagcagacca tctccggtec 700
tgggctcaac agtgattccc tgaaaagcat cagatacaaa attgtcaatt 750
ttgaccctaa acttttggaa ggaaaagtaa aggaggtatc tgaccagggg 800
gaatccatga aacctttaac ctttgcaagg ttctacttgc caattctggg 850
ttcccagcgc aaagaaggcc atatacatgg atgatgatgt aattgtgcaa 900
ggtgatattc ttgcccttta caatacagca ctgaagccag gacatgcagc 950
tgcattttca gaagattgtg attcagcctc tactaaagtt gtcattccgtg 1000
gagcaggaaa ccagtacaat tacattggct atcttgacta taaaaaggaa 1050
agaattcgta agctttccat gaaagccagc acttgctcat ttaatccgtg 1100
agttttgtt gcaaacctga cggaatggaa acgacagaat ataactaacc 1150
aactgaaaa atggatgaaa ctcaatgtag aagagggact gtagtagaga 1200

accctggctg gtagcatcac aacacctcct ctgcttatcg tattttatca 1250
 acagcactct accatogacg ctatgtggaa tgtccgccac cttggttcca 1300
 gtgctggaag acgatattca cctcagtttg taaaggctgc caagttactc 1350
 cattggaatg gacatttgaa gccatgggga aggactgctt catatactga 1400
 tgtttgggga aaaatgggtat attccagacc caacaggcaa attcaacctc 1450
 atccgaagat ataccgagat ctcaaacata aagtgaacaa gaatttgaac 1500
 tgaagcaag catttctcag gaagtcctgg aagatagcat gcgtgggaag 1550
 taacagttgc taggcttcaa tgcctatcgg tagcaagcca tggaaaaaga 1600
 tgtgtcagct aggtaaagat gacaaactgc cctgtctggc agtcagcttc 1650
 ccagacagac tatagactat aaatatgtct ccactgcctt taccaagtg 1700
 ttcttacta caatgctgaa tgactggaaa gaagaactga tatggctagt 1750
 tcagctagct ggtacagata attcaaaact gctgttggtt ttaattttgt 1800
 aacctgtggc ctgactgtga aataaaactt acatttttca atagggtaaa 1850
 aaaaaaaaaa aaaaaa 1866

<210> 174
 <211> 823
 <212> DNA
 <213> Homo sapiens

<400> 174
 ctgcaggtag acatctccac tgcccaggaa tcaactgagcg tgcagacagc 50
 acagcctcct ctgaaggccg gccataccag agtcctgcct cggcatgggc 100
 ctccaccattg aggcagctcc actgtctgtg ctggtctgag ggtgctgcct 150
 gtcattggggg cagccatctc ccaggggggc ctcatcgcca tcgtctgcaa 200
 cggctctgtg ggccttcttg tgctgctgct ctgggtcacc ctctgctggg 250
 cctgccattc tcgtctgccg acgttgactc tctctctgaa tccagtccca 300
 actccagccc tggccccctgt cctgagaagg cccaccacc ccagaagccc 350
 agccatgaag gcagctacct gctgcagccc tgaaggcccc tggcctagcc 400
 tggagcccag gacctaaagc cacctcacct agagcctgga attagtagtc 450
 cagagtccag ccagcctggg gtccagaact caagagtcgg cctgcttgga 500
 gctggaccca gcggcccaga gtctagccag cttggctcca ataggagctc 550
 agtggcccta aggagatggg cctgggggtgg gggcttatga gttggtgcta 600
 gagccagggc catctggact atgtccacc ccaagggccca agggtcaggg 650
 gccgggtcca ctctttccct aggtgagca cctctaggcc ctctaggttg 700
 gggaagcaaa ctggaacca tggcaataat aggggggtgt ccaggctggg 750

ccccctccct ggtcctccca gtgtttgctg gataataaat ggaactatgg 800

ctctaaaaaa aaaaaaaaaa aaa 823

<210> 175

<211> 87

<212> PRT

<213> Homo sapiens

<400> 175

Met Gly Ala Ala Ile Ser Gln Gly Ala Leu Ile Ala Ile Val Cys
1 5 10 15

Asn Gly Leu Val Gly Phe Leu Leu Leu Leu Leu Trp Val Ile Leu
20 25 30

Cys Trp Ala Cys His Ser Arg Leu Pro Thr Leu Thr Leu Ser Leu
35 40 45

Asn Pro Val Pro Thr Pro Ala Leu Ala Pro Val Leu Arg Arg Pro
50 55 60

His His Pro Arg Ser Pro Ala Met Lys Ala Ala Thr Cys Cys Ser
65 70 75

Pro Glu Gly Pro Trp Pro Ser Leu Glu Pro Arg Thr
80 85

<210> 176

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 176

gtttgaattc ctccaactat acccacagtc caaaagcaga ctccactgtgt 50

cccagggtac cagttcctcc aagcaagtc tttcccttat ttaaccgatg 100

tgctccctcaa acacctgagt gctactccct atttgcatct gttttgataa 150

atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200

gatacaatcc ttggcctgtg tatectcgca ttagccttgt ctttggccat 250

gatgtttacc ttcagattca tcaccaccct tctggttcac atttccattt 300

cattggttat tttgggattg ttgtttgtct gcggtgtttt atgggtggctg 350

tattatgact ataccaacga cctcagcata gaattggaca cagaagggga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcacacagg 450

cagtgtgtct cgtcttgatt tttgtttctt gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataagcc atcagcagtg ctcccttctt 550

gctgttcacg ccaactgtga catttgccat cctcattttc ttctgggtcc 600

tctgggtggc tgtgctgctg agcctgggaa ctgcaggagc tgcccagggt 650

atggaaggcg gccaaagtga atataagccc ctttcgggca ttccgtatcat 700

gtggctgtac catttaattg gcctcatctg gactagttaa ttcaccttgg 750

cgtgccagca aatgactata gctggggcag tggttacttg ttatttcaac 800
 agaagtaaaa atgatcctcc tgatcatccc atcctttcgt ctctctccat 850
 tctctcttc taccatcaag gaaccgttgt gaaagggta tttttaatct 900
 ctgtgggtgag gattccgaga atcattgtca tgtacatgca aaacgcactg 950
 aaagaacagc agcatgggtgc attgtccagg tacctgttcc gatgctgcta 1000
 ctgctgtttc tgggtgtcttg acaaatcct gctccatctc aaccagaatg 1050
 catatactac aactgctatt aatgggacag atttctgtac atcagcaaaa 1100
 gatgcattca aaatctgtc caagaactca agtcacttta catctattaa 1150
 ctgctttgga gactcataa tttttctagg aaaggtgtta gtggtgtgtt 1200
 tcaactgttt tggaggactc atggctttta actacaatcg ggcattccag 1250
 gtgtgggcag tcctctgtgt attggtagct tttttgcct acttagtagc 1300
 coatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttctctg 1350
 gttttgctgt tgatctggaa acaaatgatg gatcgtcaga aaagccctac 1400
 tttatggatc aagaatttct gagtttcgta aaaaggagca acaaatataa 1450
 caatgcaagg gcacagcagg acaagcactc attaaggaat gaggagggaa 1500
 cagaactcca ggccattgtg agatagatac ccatttaggt atctgtacct 1550
 ggaaaacatt tocttctaag agccatttac agaatagaag atgagaccac 1600
 tagagaaaag ttagtgaatt ttttttataa agacctaata aacctatttc 1650
 ttctcaaaa 1660

<210> 177
 <211> 445
 <212> PRT
 <213> Homo sapiens

<400> 177
 Met Ser Gly Arg Asp Thr Ile Leu Gly Leu Cys Ile Leu Ala Leu
 1 5 10 15
 Ala Leu Ser Leu Ala Met Met Phe Thr Phe Arg Phe Ile Thr Thr
 20 25 30
 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu
 35 40 45
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
 50 55 60
 Asp Leu Ser Ile Glu Leu Asp Thr Glu Arg Glu Asn Met Lys Cys
 65 70 75
 Val Leu Gly Phe Ala Ile Val Ser Thr Gly Ile Thr Ala Val Leu
 80 85 90
 Leu Val Leu Ile Phe Val Leu Arg Lys Arg Ile Lys Leu Thr Val

	95	100	105
Glu Leu Phe Gln	Ile Thr Asn Lys Ala	Ile Ser Ser Ala Pro	Phe
	110	115	120
Leu Leu Phe Gln	Pro Leu Trp Thr Phe	Ala Ile Leu Ile Phe	Phe
	125	130	135
Trp Val Leu Trp	Val Ala Val Leu Leu	Ser Leu Gly Thr Ala	Gly
	140	145	150
Ala Ala Gln Val	Met Glu Gly Gly Gln	Val Glu Tyr Lys Pro	Leu
	155	160	165
Ser Gly Ile Arg	Tyr Met Trp Ser Tyr	His Leu Ile Gly Leu	Ile
	170	175	180
Trp Thr Ser Glu	Phe Ile Leu Ala Cys	Gln Gln Met Thr Ile	Ala
	185	190	195
Gly Ala Val Val	Thr Cys Tyr Phe Asn	Arg Ser Lys Asn Asp	Pro
	200	205	210
Pro Asp His Pro	Ile Leu Ser Ser Leu	Ser Ile Leu Phe Phe	Tyr
	215	220	225
His Gln Gly Thr	Val Val Lys Gly Ser	Phe Leu Ile Ser Val	Val
	230	235	240
Arg Ile Pro Arg	Ile Ile Val Met Tyr	Met Gln Asn Ala Leu	Lys
	245	250	255
Glu Gln Gln His	Gly Ala Leu Ser Arg	Tyr Leu Phe Arg Cys	Cys
	260	265	270
Tyr Cys Cys Phe	Trp Cys Leu Asp Lys	Tyr Leu Leu His Leu	Asn
	275	280	285
Gln Asn Ala Tyr	Thr Thr Thr Ala Ile	Asn Gly Thr Asp Phe	Cys
	290	295	300
Thr Ser Ala Lys	Asp Ala Phe Lys Ile	Leu Ser Lys Asn Ser	Ser
	305	310	315
His Phe Thr Ser	Ile Asn Cys Phe Gly	Asp Phe Ile Ile Phe	Leu
	320	325	330
Gly Lys Val Leu	Val Val Cys Phe Thr	Val Phe Gly Gly Leu	Met
	335	340	345
Ala Phe Asn Tyr	Asn Arg Ala Phe Gln	Val Trp Ala Val Pro	Leu
	350	355	360
Leu Leu Val Ala	Phe Phe Ala Tyr Leu	Val Ala His Ser Phe	Leu
	365	370	375
Ser Val Phe Glu	Thr Val Leu Asp Ala	Leu Phe Leu Cys Phe	Ala
	380	385	390
Val Asp Leu Glu	Thr Asn Asp Gly Ser	Ser Glu Lys Pro Tyr	Phe
	395	400	405
Met Asp Gln Glu	Phe Leu Ser Phe Val	Lys Arg Ser Asn Lys	Leu

410

415

420

Asn Asn Ala Arg Ala Gln Gln Asp Lys His Ser Leu Arg Asn Glu
425 430 435

Glu Gly Thr Glu Leu Gln Ala Ile Val Arg
440 445

<210> 178
<211> 2773
<212> DNA
<213> Homo sapiens

<400> 178
gttcgattag ctccctctgag aagaagagaa aaggttcttg gacctctccc 50
tgtttcttcc ttagaataat ttgtatggga tttgtgatgc aggaaagcct 100
aagggaaaaa gaataattcat tctgtgtggt gaaaattttt tgaaaaaaa 150
attgccttct tcaaaacaagg gtgtcattct gatatttatg aggactgttg 200
ttctcactat gaaggcatct gttattgaaa tgttccttgt tttgtctgtg 250
actggagtac attcaaaaca agaaacggca aagaagatta aaaggcccaa 300
gttcaactgtg cctcagatca actgcgatgt caaagccgga aagatcatcg 350
atcctgagtt catttgtgaa tgtccagcag gatgccaaaga ccccaaatatc 400
catgtttatg gcaactgacgt gtatgcatcc tactccagtg tgtgtggcgc 450
tgccgtacac agtggtgtgc ttgataattc aggagggaaa atacttgttc 500
ggaaggttgc tggacagtct ggttacaaag ggagttatcc caacggtgtc 550
caatcgttat cctaccacg atggagagaa tcttttatcg tcttagaaa 600
taaacccaaa aagggtgttaa cctaccatc agctcttaca tactcatcat 650
cgaaaagtcc agctgcccaa gcaggtgaga ccacaaaagc ctatcagagg 700
ccacctattc cagggaacaac tgcacagccg gtcactctga tgcagcttct 750
ggctgtcact gtagctgtgg ccacccccac cacttgcca aggccatccc 800
cttctgotgc ttctaccacc agcatcccca gaccacaatc agtgggccc 850
aggagccagg agatggatct ctggtccact gccacctaca caagcagcca 900
aaacaggccc agagctgatc caggtatcca aaggcaagat ccttcaggag 950
ctgccttcca gaaacctgtt ggagcggatg tcagcctggg acttgttcca 1000
aaagaagaat tgagcacaca gtctttggag ccagtatccc tgggagatcc 1050
aaactgcaaa attgacttgt ogtttttaat tgatggggagc accagcattg 1100
gcaaaaggcg attcogaatc cagaagcagc tcttggtcta tgttgcccaa 1150
gtcttggaca ttggccctgc cggtcactg atgggtgttg tccagtatgg 1200
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<210> 179

<211> 678
 <212> PRT
 <213> Homo sapiens

<400> 179

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Phe	Leu	Val	Leu	Leu	Val	Thr	Gly	Val	His	Ser	Asn	Lys	Glu	Thr	
			20						25					30	
Ala	Lys	Lys	Ile	Lys	Arg	Pro	Lys	Phe	Thr	Val	Pro	Gln	Ile	Asn	
			35						40					45	
Cys	Asp	Val	Lys	Ala	Gly	Lys	Ile	Ile	Asp	Pro	Glu	Phe	Ile	Val	
			50						55					60	
Lys	Cys	Pro	Ala	Gly	Cys	Gln	Asp	Pro	Lys	Tyr	His	Val	Tyr	Gly	
			65						70					75	
Thr	Asp	Val	Tyr	Ala	Ser	Tyr	Ser	Ser	Val	Cys	Gly	Ala	Ala	Val	
			80						85					90	
His	Ser	Gly	Val	Leu	Asp	Asn	Ser	Gly	Gly	Lys	Ile	Leu	Val	Arg	
			95						100					105	
Lys	Val	Ala	Gly	Gln	Ser	Gly	Tyr	Lys	Gly	Ser	Tyr	Ser	Asn	Gly	
			110						115					120	
Val	Gln	Ser	Leu	Ser	Leu	Pro	Arg	Trp	Arg	Glu	Ser	Phe	Ile	Val	
			125						130					135	
Leu	Glu	Ser	Lys	Pro	Lys	Lys	Gly	Val	Thr	Tyr	Pro	Ser	Ala	Leu	
			140						145					150	
Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr	
			155						160					165	
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln	
			170						175					180	
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala	
			185						190					195	
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr	
			200						205					210	
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu	
			215						220					225	
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg	
			230						235					240	
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala	
			245						250					255	
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val	
			260						265					270	
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu	
			275						280					285	
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly	

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Ser Thr Ser Ile	Gly Lys Arg Arg Phe	Arg Ile Gln Lys Gln Leu			
	305	310			315
Leu Ala Asp Val	Ala Gln Ala Leu Asp	Ile Gly Pro Ala Gly Pro			
	320	325			330
Leu Met Gly Val	Val Gln Tyr Gly Asp	Asn Pro Ala Thr His Phe			
	335	340			345
Asn Leu Lys Thr	His Thr Asn Ser Arg	Asp Leu Lys Thr Ala Ile			
	350	355			360
Glu Lys Ile Thr	Gln Arg Gly Gly Leu	Ser Asn Val Gly Arg Ala			
	365	370			375
Ile Ser Phe Val	Thr Lys Asn Phe Phe	Ser Lys Ala Asn Gly Asn			
	380	385			390
Arg Ser Gly Ala	Pro Asn Val Val Val	Val Met Val Asp Gly Trp			
	395	400			405
Pro Thr Asp Lys	Val Glu Glu Ala Ser	Arg Leu Ala Arg Glu Ser			
	410	415			420
Gly Ile Asn Ile	Phe Phe Ile Thr Ile	Glu Gly Ala Ala Glu Asn			
	425	430			435
Glu Lys Gln Tyr	Val Val Glu Pro Asn	Phe Ala Asn Lys Ala Val			
	440	445			450
Cys Arg Thr Asn	Gly Phe Tyr Ser Leu	His Val Gln Ser Trp Phe			
	455	460			465
Gly Leu His Lys	Thr Leu Gln Pro Leu	Val Lys Arg Val Cys Asp			
	470	475			480
Thr Asp Arg Leu	Ala Cys Ser Lys Thr	Cys Leu Asn Ser Ala Asp			
	485	490			495
Ile Gly Phe Val	Ile Asp Gly Ser Ser	Ser Val Gly Thr Gly Asn			
	500	505			510
Phe Arg Thr Val	Leu Gln Phe Val Thr	Asn Leu Thr Lys Glu Phe			
	515	520			525
Glu Ile Ser Asp	Thr Asp Thr Arg Ile	Gly Ala Val Gln Tyr Thr			
	530	535			540
Tyr Glu Gln Arg	Leu Glu Phe Gly Phe	Asp Lys Tyr Ser Ser Lys			
	545	550			555
Pro Asp Ile Leu	Asn Ala Ile Lys Arg	Val Gly Tyr Trp Ser Gly			
	560	565			570
Gly Thr Ser Thr	Gly Ala Ala Ile Asn	Phe Ala Leu Glu Gln Leu			
	575	580			585
Phe Lys Lys Ser	Lys Pro Asn Lys Arg	Lys Leu Met Ile Leu Ile			
	590	595			600
Thr Asp Gly Arg	Ser Tyr Asp Asp Val	Arg Ile Pro Ala Met Ala			

	605		610		615
Ala His Leu Lys	Gly Val Ile Thr Tyr	Ala Ile Gly Val Ala Trp			
	620	625	630		
Ala Ala Gln Glu	Glu Leu Glu Val Ile	Ala Thr His Pro Ala Arg			
	635	640	645		
Asp His Ser Phe	Phe Val Asp Glu Phe	Asp Asn Leu His Gln Tyr			
	650	655	660		
Val Pro Arg Ile	Ile Gln Asn Ile Cys	Thr Glu Phe Asn Ser Gln			
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Pro Arg Asn

<210> 180
 <211> 1759
 <212> DNA
 <213> Homo sapiens

<400> 180
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 agatcccgcc cactacagtt ttctctgac tctaattgat gcaactggaca 200
 ccttgctgat tttggggaat gtctcagaat tccaaagagt ggttgaagt 250
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 aacaaacatt cgagtggtag gaggactcct gtctgctcat ctgctctcca 350
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 ctgagaatgg ctgaggaggc ggcccgaata ctctcccag ccttccagac 450
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<210> 181
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 181
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 20 25 30
 Asp Pro Ala His Tyr Ser Phe Ser Leu Thr Leu Ile Asp Ala Leu
 35 40 45
 Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg Val
 50 55 60
 Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
 65 70 75
 Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu
 80 85 90
 Ser Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala
 95 100 105
 Gly Trp Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala
 110 115 120
 Ala Arg Lys Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro

	125		130		135
Tyr Gly Thr Val	Asn Leu Leu His Gly	Val Asn Pro Gly Glu Thr			
	140		145		150
Pro Val Thr Cys	Thr Ala Gly Ile Gly	Thr Phe Ile Val Glu Phe			
	155		160		165
Ala Thr Leu Ser	Ser Leu Thr Gly Asp	Pro Val Phe Glu Asp Val			
	170		175		180
Ala Arg Val Ala	Leu Met Arg Leu Trp	Glu Ser Arg Ser Asp Ile			
	185		190		195
Gly Leu Val Gly	Asn His Ile Asp Val	Leu Thr Gly Lys Trp Val			
	200		205		210
Ala Gln Asp Ala	Gly Ile Gly Ala Gly	Val Asp Ser Tyr Phe Glu			
	215		220		225
Tyr Leu Val Lys	Gly Ala Ile Leu Leu	Gln Asp Lys Lys Leu Met			
	230		235		240
Ala Met Phe Leu	Glu Tyr Asn Lys Ala	Ile Arg Asn Tyr Thr Arg			
	245		250		255
Phe Asp Asp Trp	Tyr Leu Trp Val Gln	Met Tyr Lys Gly Thr Val			
	260		265		270
Ser Met Pro Val	Phe Gln Ser Leu Glu	Ala Tyr Trp Pro Gly Leu			
	275		280		285
Gln Ser Leu Ile	Gly Asp Ile Asp Asn	Ala Met Arg Thr Phe Leu			
	290		295		300
Asn Tyr Tyr Thr	Val Trp Lys Gln Phe	Gly Gly Leu Pro Glu Phe			
	305		310		315
Tyr Asn Ile Pro	Gln Gly Tyr Thr Val	Glu Lys Arg Glu Gly Tyr			
	320		325		330
Pro Leu Arg Pro	Glu Leu Ile Glu Ser	Ala Met Tyr Leu Tyr Arg			
	335		340		345
Ala Thr Gly Asp	Pro Thr Leu Leu Glu	Leu Gly Arg Asp Ala Val			
	350		355		360
Glu Ser Ile Glu	Lys Ile Ser Lys Val	Glu Cys Gly Phe Ala Thr			
	365		370		375
Ile Lys Asp Leu	Arg Asp His Lys Leu	Asp Asn Arg Met Glu Ser			
	380		385		390
Phe Phe Leu Ala	Glu Thr Val Lys Tyr	Leu Tyr Leu Leu Phe Asp			
	395		400		405
Pro Thr Asn Phe	Ile His Asn Asn Gly	Ser Thr Phe Asp Ala Val			
	410		415		420
Ile Thr Pro Tyr	Gly Glu Cys Ile Leu	Gly Ala Gly Gly Tyr Ile			
	425		430		435
Phe Asn Thr Glu	Ala His Pro Ile Asp	Leu Ala Ala Leu His Cys			

	440		445		450
Cys Gln Arg Leu	Lys Glu Glu Gln Trp	Glu Val Glu Asp Leu	Met		
	455	460	465		
Arg Glu Phe Tyr	Ser Leu Lys Arg Ser	Arg Ser Lys Phe Gln	Lys		
	470	475	480		
Asn Thr Val Ser	Ser Gly Pro Trp Glu	Pro Pro Ala Arg Pro	Gly		
	485	490	495		
Thr Leu Phe Ser	Pro Glu Asn His Asp	Gln Ala Arg Glu Arg	Lys		
	500	505	510		
Pro Ala Lys Gln	Lys Val Pro Leu Leu	Ser Cys Pro Ser Gln	Pro		
	515	520	525		
Phe Thr Ser Lys	Leu Ala Leu Leu Gly	Gln Val Phe Leu Asp	Ser		
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Ser

<210> 182
 <211> 2056
 <212> DNA
 <213> Homo sapiens

<400> 182
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 gtaacatgtg catgtttgtt gtgtctcctt tttctgttgg taaagtacag 2000
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 aaaaaa 2056

<210> 183
 <211> 311
 <212> PRT
 <213> Homo sapiens

<220>
 <221> Signal peptide
 <222> 1-29
 <223> Signal peptide

<220>
 <221> N-glycosylation sites
 <222> 40-43, 134-137

<223> N-glycosylation sites.

<220>

<221> Tissue factor proteins homology

<222> 92-119

<223> Tissue factor proteins homology

<220>

<221> Transmembrane domain

<222> 230-255

<223> Transmembrane domain

<220>

<221> Integrins alpha chain protein homology

<222> 232-262

<223> Integrins alpha chain protein homology

<400> 183

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Phe	Met	Trp	Phe	Phe	Tyr	Ala	Leu	Ile	Pro	Cys	Leu	Leu	Thr	Asp	
				20					25					30	
Glu	Val	Ala	Ile	Leu	Pro	Ala	Pro	Gln	Asn	Leu	Ser	Val	Leu	Ser	
				35					40					45	
Thr	Asn	Met	Lys	His	Leu	Leu	Met	Trp	Ser	Pro	Val	Ile	Ala	Pro	
				50					55					60	
Gly	Glu	Thr	Val	Tyr	Tyr	Ser	Val	Glu	Tyr	Gln	Gly	Glu	Tyr	Glu	
				65					70					75	
Ser	Leu	Tyr	Thr	Ser	His	Ile	Trp	Ile	Pro	Ser	Ser	Trp	Cys	Ser	
				80					85					90	
Leu	Thr	Glu	Gly	Pro	Glu	Cys	Asp	Val	Thr	Asp	Asp	Ile	Thr	Ala	
				95					100					105	
Thr	Val	Pro	Tyr	Asn	Leu	Arg	Val	Arg	Ala	Thr	Leu	Gly	Ser	Gln	
				110					115					120	
Thr	Ser	Ala	Trp	Ser	Ile	Leu	Lys	His	Pro	Phe	Asn	Arg	Asn	Ser	
				125					130					135	
Thr	Ile	Leu	Thr	Arg	Pro	Gly	Met	Glu	Ile	Thr	Lys	Asp	Gly	Phe	
				140					145					150	
His	Leu	Val	Ile	Glu	Leu	Glu	Asp	Leu	Gly	Pro	Gln	Phe	Glu	Phe	
				155					160					165	
Leu	Val	Ala	Tyr	Trp	Arg	Arg	Glu	Pro	Gly	Ala	Glu	Glu	His	Val	
				170					175					180	
Lys	Met	Val	Arg	Ser	Gly	Gly	Ile	Pro	Val	His	Leu	Glu	Thr	Met	
				185					190					195	
Glu	Pro	Gly	Ala	Ala	Tyr	Cys	Val	Lys	Ala	Gln	Thr	Phe	Val	Lys	
				200					205					210	
Ala	Ile	Gly	Arg	Tyr	Ser	Ala	Phe	Ser	Gln	Thr	Glu	Cys	Val	Glu	
				215					220					225	

Val	Gln	Gly	Glu	Ala	Ile	Pro	Leu	Val	Leu	Ala	Leu	Phe	Ala	Phe	
				230					235					240	
Val	Gly	Phe	Met	Leu	Ile	Leu	Val	Val	Val	Pro	Leu	Phe	Val	Trp	
				245					250					255	
Lys	Met	Gly	Arg	Leu	Leu	Gln	Tyr	Ser	Cys	Cys	Pro	Val	Val	Val	
				260					265					270	
Leu	Pro	Asp	Thr	Leu	Lys	Ile	Thr	Asn	Ser	Pro	Gln	Lys	Leu	Ile	
				275					280					285	
Ser	Cys	Arg	Arg	Glu	Glu	Val	Asp	Ala	Cys	Ala	Thr	Ala	Val	Met	
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Ser	Pro	Glu	Glu	Leu	Leu	Arg	Ala	Trp	Ile	Ser					
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<210> 184
 <211> 808
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 654, 711, 748
 <223> unknown base

<400> 184
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 agaatgcctt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200
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 cttncacctg gttattgagc tggaggacct ggggccccag tttgagtcc 700
 ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
 gaaccccttg cggccgctgg ggtatctctc gagaaaagag aggcccaata 800
 tgaccac 808

<210> 185
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 185
aggcttcgct gcgactagac etc 23

<210> 186
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 186
ccaggctcggg taaggatggt tga g 24

<210> 187
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 187
tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 188
<211> 1227
<212> DNA
<213> Homo sapiens

<400> 188
cggacgcgtg ggcgcgcacc tccggaacaa gccatggtgg cggcgacggt 50
ggcagcggcg tggtctctcc tgtgggctgc ggctgcgcgc cagcaggagc 100
aggacttcta cgacttcaag gcgtcaaca tccggggcaa actggtgtgc 150
ctggagaagt accgcggatc ggtgtccctg gtggtgaatg tggcagcga 200
gtcgcgcttc acagaccagc actaccgagc cctgcagcag ctgcagcga 250
acctgggccc ccaccacttt aacgtgctcg ccttcccctg caaccagttt 300
ggccaacagg agcctgacag caacaaggag attgagagct ttgcccgcgc 350
cacctacagt gtctcattcc ccattgttag caagattgca gtcaccggta 400
ctggtgccca tctgtccttc aagtacctgg ccagacttc tgggaaggag 450
cccacctgga actcttgaa gtacctagta gccccagatg gaaaggtggt 500
aggggcttgg gacccaactg gtgcagtgga ggaggtcaga cccagatca 550
cagcgtcgtg gaggaagctc atcctactga agcgagaaga cttataacca 600

ccgcgtctcc tcctccacca cctcatcccg cccacctgtg tggggctgac 650
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 tcctttactc ttatgccatt ggtcccatca ttcttgtggg ggaataatc 750
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 caataaaaaac ttgcatccaa catgaatttc cagccgatga taatccaggc 1100
 caaagggtta gttgtgttta tttcctctgt attattttct tcattacaaa 1150
 agaaatgcaa gttcattgta acaatccaaa caatacctca cgatataaaa 1200
 taaaaatgaa agtatcctcc tcaaaaa 1227

<210> 189

<211> 187

<212> PRT

<213> Homo sapiens

<400> 189

Met Val Ala Ala Thr Val Ala Ala Ala Trp Leu Leu Trp Ala
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Ala Ala Cys Ala Gln Gln Glu Gln Asp Phe Tyr Asp Phe Lys Ala
 20 25 30

Val Asn Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly
 35 40 45

Ser Val Ser Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr
 50 55 60

Asp Gln His Tyr Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly
 65 70 75

Pro His His Phe Asn Val Leu Ala Phe Pro Cys Asn Gln Phe Gly
 80 85 90

Gln Gln Glu Pro Asp Ser Asn Lys Glu Ile Glu Ser Phe Ala Arg
 95 100 105

Arg Thr Tyr Ser Val Ser Phe Pro Met Phe Ser Lys Ile Ala Val
 110 115 120

Thr Gly Thr Gly Ala His Pro Ala Phe Lys Tyr Leu Ala Gln Thr
 125 130 135

Ser Gly Lys Glu Pro Thr Trp Asn Phe Trp Lys Tyr Leu Val Ala
 140 145 150

Pro Asp Gly Lys Val Val Gly Ala Trp Asp Pro Thr Val Ser Val

155 160 165
 Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val Arg Lys Leu Ile
 170 175 180
 Leu Leu Lys Arg Glu Asp Leu
 185

<210> 190
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 190
 gcaggacttc tacgacttca aggc 24

<210> 191
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 191
 agtctgggcc aggtacttga aggc 24

<210> 192
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 192
 caacatccgg ggcaaaactgg tgctgctgga gaagtaccgc ggatcggtgt 50

<210> 193
 <211> 2187
 <212> DNA
 <213> Homo sapiens

<400> 193
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 acgtcgggat gctgcgcctg gggaggctgt ggcgccggag ctcggggggtg 100
 ctggggggccc gggccgcctt ctctcggagt tggcagggaag ccagggttgca 150
 ggggtgtccgc ttctcagtt ccagagaggt ggatcgcgat gtotccacgc 200
 ccatcggagg cotcagctac gttcagggtt gcacacaaaa gcattctaac 250
 agcaagactg tgggcccagt cctggagacc acagcacaga ggggtccaga 300
 acgagaggcc ttggtcgtcc tccatgaaga cgtaagggtt acctttgcc 350
 aactcaagga ggaggtggac aaagctgctt ctggcctcct gagcattggc 400

ctctgcaaag gtgaccggct gggcatgtgg ggacctaact cctatgcatg 450
 ggtgtctcatg cagttggcca cggcccaggc gggcatcatt ctgggtgtctg 500
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 gcccctttgc cggggaccct gctcctggat gaagtgggtg cggtgggac 750
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 aagggggcca ccctctccca ctacaacatt gtcaacaact ccaacatttt 900
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 tggcaagaag gcaactggag ccatacgcag agagagaggg acccttctgt 1100
 atggtacccc cagcatgttc gtggacatc tgaaccagcc agacttctcc 1150
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 acctccagag ttgatccgag ccatacatca caagataaat atgaaggacc 1250
 tgggtggtgc ttatggaacc acagagaaca gtcccgtgac attcgcgcac 1300
 ttccctgagg acaactgtga gcagaaggca gaaagcgtgg gcagaattat 1350
 gcctcacacg gaggcccgga tcatgaacat ggaggcaggg acgtgggcaa 1400
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 ggctactggg gtgagcctca gaagacagag gaagcagtgg atcaggacaa 1500
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 agtgacgggt gtgggagtga aggacgatcg gatgggggaa gagattttgtg 1700
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 aacttcgaga gcagatggaa cgacatctaa atctgtgaat aaagcagcag 1900
 gcctgtctg gccggttggc ttgactctct cctgtcagaa tgcaacctgg 1950
 ctttatgcac ctagatgtcc ccagcaccca gttctgagcc aggcacatca 2000

aatgtcaagg aattgactga acgaactaag agctcctgga tgggtccggg 2050
 aactcgcttg ggacacaaggt gccaaaaggc aggcagcctg cccaggccct 2100
 ccctcctgtc catccccac attccccctgt ctgtccttgt gatttggcat 2150
 aaagagcttc tgttttcttt gaaaaaaaaa aaaaaaa 2187

<210> 194
 <211> 615
 <212> PRT
 <213> Homo sapiens

<400> 194
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 Gly Ser Ser Gly Val Leu Gly Ala Arg Ala Ala Leu Ser Arg Ser
 20 25 30
 Trp Gln Glu Ala Arg Leu Gln Gly Val Arg Phe Leu Ser Ser Arg
 35 40 45
 Glu Val Asp Arg Met Val Ser Thr Pro Ile Gly Gly Leu Ser Tyr
 50 55 60
 Val Gln Gly Cys Thr Lys Lys His Leu Asn Ser Lys Thr Val Gly
 65 70 75
 Gln Cys Leu Glu Thr Thr Ala Gln Arg Val Pro Glu Arg Glu Ala
 80 85 90
 Leu Val Val Leu His Glu Asp Val Arg Leu Thr Phe Ala Gln Leu
 95 100 105
 Lys Glu Glu Val Asp Lys Ala Ala Ser Gly Leu Leu Ser Ile Gly
 110 115 120
 Leu Cys Lys Gly Asp Arg Leu Gly Met Trp Gly Pro Asn Ser Tyr
 125 130 135
 Ala Trp Val Leu Met Gln Leu Ala Thr Ala Gln Ala Gly Ile Ile
 140 145 150
 Leu Val Ser Val Asn Pro Ala Tyr Gln Ala Met Glu Leu Glu Tyr
 155 160 165
 Val Leu Lys Lys Val Gly Cys Lys Ala Leu Val Phe Pro Lys Gln
 170 175 180
 Phe Lys Thr Gln Gln Tyr Tyr Asn Val Leu Lys Gln Ile Cys Pro
 185 190 195
 Glu Val Glu Asn Ala Gln Pro Gly Ala Leu Lys Ser Gln Arg Leu
 200 205 210
 Pro Asp Leu Thr Thr Val Ile Ser Val Asp Ala Pro Leu Pro Gly
 215 220 225
 Thr Leu Leu Leu Asp Glu Val Val Ala Ala Gly Ser Thr Arg Gln
 230 235 240
 His Leu Asp Gln Leu Gln Tyr Asn Gln Gln Phe Leu Ser Cys His

					245					250					255
Asp	Pro	Ile	Asn	Ile	260	Gln	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Ser	Pro
Lys	Gly	Ala	Thr	Leu	275	Ser	His	Tyr	Asn	Ile	Val	Asn	Asn	Ser	Asn
Ile	Leu	Gly	Glu	Arg	290	Leu	Lys	Leu	His	Glu	Lys	Thr	Pro	Glu	Gln
Leu	Arg	Met	Ile	Leu	305	Pro	Asn	Pro	Leu	Tyr	His	Cys	Leu	Gly	Ser
Val	Ala	Gly	Thr	Met	320	Met	Cys	Leu	Met	Tyr	Gly	Ala	Thr	Leu	Ile
Leu	Ala	Ser	Pro	Ile	335	Phe	Asn	Gly	Lys	Lys	Ala	Leu	Glu	Ala	Ile
Ser	Arg	Glu	Arg	Gly	350	Thr	Phe	Leu	Tyr	Gly	Thr	Pro	Thr	Met	Phe
Val	Asp	Ile	Leu	Asn	365	Gln	Pro	Asp	Phe	Ser	Ser	Tyr	Asp	Ile	Ser
Thr	Met	Cys	Gly	Gly	380	Val	Ile	Ala	Gly	Ser	Pro	Ala	Pro	Pro	Glu
Leu	Ile	Arg	Ala	Ile	395	Ile	Asn	Lys	Ile	Asn	Met	Lys	Asp	Leu	Val
Val	Ala	Tyr	Gly	Thr	410	Thr	Glu	Asn	Ser	Pro	Val	Thr	Phe	Ala	His
Phe	Pro	Glu	Asp	Thr	425	Val	Glu	Gln	Lys	Ala	Glu	Ser	Val	Gly	Arg
Ile	Met	Pro	His	Thr	440	Glu	Ala	Arg	Ile	Met	Asn	Met	Glu	Ala	Gly
Thr	Leu	Ala	Lys	Leu	455	Asn	Thr	Pro	Gly	Glu	Leu	Cys	Ile	Arg	Gly
Tyr	Cys	Val	Met	Leu	470	Gly	Tyr	Trp	Gly	Glu	Pro	Gln	Lys	Thr	Glu
Glu	Ala	Val	Asp	Gln	485	Asp	Lys	Trp	Tyr	Trp	Thr	Gly	Asp	Val	Ala
Thr	Met	Asn	Glu	Gln	500	Gly	Phe	Cys	Lys	Ile	Val	Gly	Arg	Ser	Lys
Asp	Met	Ile	Ile	Arg	515	Gly	Gly	Glu	Asn	Ile	Tyr	Pro	Ala	Glu	Leu
Glu	Asp	Phe	Phe	His	530	Thr	His	Pro	Lys	Val	Gln	Glu	Val	Gln	Val
Val	Gly	Val	Lys	Asp	545	Asp	Arg	Met	Gly	Glu	Glu	Ile	Cys	Ala	Cys
Ile	Arg	Leu	Lys	Asp		Gly	Glu	Glu	Thr	Thr	Val	Glu	Glu	Ile	Lys

560	565	570
Ala Phe Cys Lys Gly Lys Ile Ser His Phe Lys Ile Pro Lys Tyr		
575	580	585
Ile Val Phe Val Thr Asn Tyr Pro Leu Thr Ile Ser Gly Lys Ile		
590	595	600
Gln Lys Phe Lys Leu Arg Glu Gln Met Glu Arg His Leu Asn Leu		
605	610	615

<210> 195
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 195
 caactccaac attttaggag agcgccctgaa actgcatgag aagacaccag 50
 agcagttgcg gatgatcctg cccaaccccc tgtaccattg cctgggttcc 100
 gtggcaggca caatgatgtg tctgatgtac ggtgccacco tcactctggc 150
 ctctcccatc ttcaatggca agaaggcact ggaggccatc agcagagaga 200
 gaggcacott cctgtatggt acccccacga tgttcgtgga cattctgaac 250
 cagccagact tctccagtta tgacatctcg accatgtgtg gaggtgtcat 300
 tgctgggttc cctgcacctc cagagttgat ccgagccatc atcaacaaga 350
 taaatatgaa ggacctggtg gttgcttatg gaaccacaga gaacagtccc 400
 gtgacattcg cgcacttccc tgaggacact gtggagcaga aggcagaaaag 450
 cgtgggcaga attatgcctc acacggaggc gcggatcatg aacatggagg 500
 cagggagcgt ggcaaaagctg aacacgcccg gggagctgtg catccgaggg 550
 tactgcgtca tgctgggcta ctggggtgag cctcagaaga cagaggaagc 600
 agtggatcag gacaagtgtt attggacagg agatgtcgcc ac 642

<210> 196
 <211> 1575
 <212> DNA
 <213> Homo sapiens

<400> 196
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 gatctggact gcaggctggc tgctgctgct gctgcttcgc ggaggagcgc 100
 aggccctgga gtgctacagc tgcgtgcaga aagcagatga cggatgtctc 150
 ccgaacaaga tgaagacagt gaagtgcgcg cggggcgtgg acgtctgcac 200
 cgaggccgtg ggggcggtgg agaccatcca cggacaattc tcgtggtgag 250
 tgcgggggttg cggttcggga ctccccggca agaatgaccg cggcctggat 300
 ctccacgggc ttctggcgtt catccagctg cagcaatgag ctcaggatgc 350

Pro Asn Lys Met Lys Thr Val Lys Cys Ala Pro Gly Val Asp Val
 50 55 60
 Cys Thr Glu Ala Val Gly Ala Val Glu Thr Ile His Gly Gln Phe
 65 70 75
 Ser Leu Ala Val Arg Gly Cys Gly Ser Gly Leu Pro Gly Lys Asn
 80 85 90
 Asp Arg Gly Leu Asp Leu His Gly Leu Leu Ala Phe Ile Gln Leu
 95 100 105
 Gln Gln Cys Ala Gln Asp Arg Cys Asn Ala Lys Leu Asn Leu Thr
 110 115 120
 Ser Arg Ala Leu Asp Pro Ala Gly Asn Glu Ser Ala Tyr Pro Pro
 125 130 135
 Asn Gly Val Glu Cys Tyr Ser Cys Val Gly Leu Ser Arg Glu Ala
 140 145 150
 Cys Gln Gly Thr Ser Pro Pro Val Val Ser Cys Tyr Asn Ala Ser
 155 160 165
 Asp His Val Tyr Lys Gly Cys Phe Asp Gly Asn Val Thr Leu Thr
 170 175 180
 Ala Ala Asn Val Thr Val Ser Leu Pro Val Arg Gly Cys Val Gln
 185 190 195
 Asp Glu Phe Cys Thr Arg Asp Gly Val Thr Gly Pro Gly Phe Thr
 200 205 210
 Leu Ser Gly Ser Cys Cys Gln Gly Ser Arg Cys Asn Ser Asp Leu
 215 220 225
 Arg Asn Lys Thr Tyr Phe Ser Pro Arg Ile Pro Pro Leu Val Arg
 230 235 240
 Leu Pro Pro Pro Glu Pro Thr Thr Val Ala Ser Thr Thr Ser Val
 245 250 255
 Thr Thr Ser Thr Ser Ala Pro Val Arg Pro Thr Ser Thr Thr Lys
 260 265 270
 Pro Met Pro Ala Pro Thr Ser Gln Thr Pro Arg Gln Gly Val Glu
 275 280 285
 His Glu Ala Ser Arg Asp Glu Glu Pro Arg Leu Thr Gly Gly Ala
 290 295 300
 Ala Gly His Gln Asp Arg Ser Asn Ser Gly Gln Tyr Pro Ala Lys
 305 310 315
 Gly Gly Pro Gln Gln Pro His Asn Lys Gly Cys Val Ala Pro Thr
 320 325 330
 Ala Gly Leu Ala Ala Leu Leu Leu Ala Val Ala Ala Gly Val Leu
 335 340 345

Leu

<210> 198
<211> 1657
<212> DNA
<213> Homo sapiens

<400> 198
cgggactcgg cgggtcctcc tgggagtctc ggaggggacc ggctgtgcag 50
acgccatgga gttggtgctg gtcttctctc gcagcctgct ggcceccatg 100
gtcctggcca gtgcagctga aaaggagaag gaaatggacc cttttcatta 150
tgattaccag accctgagga ttgggggact ggtgttcgct gtggtcctct 200
tctcggttgg gatcctcctt atcctaagtc gcaggtgcaa gtgcagtttc 250
aatcagaagc cccggggccc aggagatgag gaagcccagg tggagaacct 300
catcaccgcc aatgcaacag agcccagaa gcagagaact gaagtgcagc 350
catcaggtag aagcctctgg aacctgaggc ggctgcttga acctttggat 400
gcaaatgtcg atgcttaaga aaaccggcca cttcagcaac agccctttcc 450
ccaggagaag ccaagaactt gtgtgtcccc caccctatcc cctctaacc 500
cattcctcca cctgatgatg caactaacac ttgcctcccc actgcagcct 550
gcggtcctgc ccacctccc tgatgtgtgt gtgtgtgtgt gtgtgtgact 600
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ttgtgtttgt tagtgaactg tggactcgct ttcccaggca ggggctgagc 700
cacatggcca tetgtctctc cctgcccccg tggccctcca tcaccttctg 750
ctctaggag gctgcttgtt gcccgagacc agccccctcc cctgatttag 800
ggatgcgtag ggtaagagca cgggcagtag tcttcagtcg tcttgggacc 850
tgggaaggtt tgcagcactt tgtcatcatt cttcatggac tcctttcact 900
cctttaacaa aaaccttgc tcttatccc acctgatccc agtctgaagg 950
tctcttagca actggagata caaagcaagg agctggtgag ccagcgttg 1000
acgtcaggca ggctatgccc ttccgtggtt aatttcttcc caggggcttc 1050
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caggcccagg gcttctactc tgcccctggg gaatgtgtcc cctgcatatc 1150
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ccgttggggc cagcacaccg ggatggatgg agggagagca gaggcccttg 1350
cttctctgcc tacgtccctc tagatgggca gcagaggcaa ctcccgcac 1400

ctttgctctg cctgtcgggt gtcagagcgg tgagcgaggt gggttgaga 1450
 ctccagcaggc tccgtgcagc ccttggaac agtgagaggt tgaaggatcat 1500
 aacgagagtg ggaactcaac ccagatcccg cccctcctgt cctctgtgtt 1550
 cccgcggaaa ccaaccaaac cgtgcgctgt gaccattgc tgtctctgt 1600
 atcgtgatct atcctcaaca acaacagaaa aaaggaataa aatatccttt 1650
 gtttct 1657

<210> 199
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 199
 Met Glu Leu Val Leu Val Phe Leu Cys Ser Leu Leu Ala Pro Met
 1 5 10 15
 Val Leu Ala Ser Ala Ala Glu Lys Glu Lys Glu Met Asp Pro Phe
 20 25 30
 His Tyr Asp Tyr Gln Thr Leu Arg Ile Gly Gly Leu Val Phe Ala
 35 40 45
 Val Val Leu Phe Ser Val Gly Ile Leu Leu Ile Leu Ser Arg Arg
 50 55 60
 Cys Lys Cys Ser Phe Asn Gln Lys Pro Arg Ala Pro Gly Asp Glu
 65 70 75
 Glu Ala Gln Val Glu Asn Leu Ile Thr Ala Asn Ala Thr Glu Pro
 80 85 90
 Gln Lys Gln Arg Thr Glu Val Gln Pro Ser Gly Gly Ser Leu Trp
 95 100 105
 Asn Leu Arg Arg Leu Leu Glu Pro Leu Asp Ala Asn Val Asp Ala
 110 115 120

<210> 200
 <211> 415
 <212> DNA
 <213> Homo sapiens

<400> 200
 aaacttgacg ccatgaagat cccggctcctt cctgccgtgg tgctcctctc 50
 cctcctgggt ctccactctg cccaggggag caccctgggt ggtcctgag 100
 aagaaagcac cattgagaat tatgcgtcac gacccgaggc ctttaacacc 150
 cggttctcga acatgcacaa attgcgatct gcgtttaagg ctgatgagtt 200
 cctgaactgg caogccctct ttgagtctat caaaaggaaa ottcctttcc 250
 tcaactggga tgcccttctt aagctgaaag gactgaggag cgcaactcct 300
 gatgccaggt gaccatgacc tccactggaa gagggggcta gcgtgagcgc 350
 tgattctcaa cctaccataa ctctttcctg cctcaggaaac tccaataaaa 400

cattttccat ccaaa 415

<210> 201
<211> 99
<212> PRT
<213> Homo sapiens

<400> 201
Met Lys Ile Pro Val Leu Pro Ala Val Val Leu Leu Ser Leu Leu
1 5 10 15
Val Leu His Ser Ala Gln Gly Ala Thr Leu Gly Gly Pro Glu Glu
20 25 30
Glu Ser Thr Ile Glu Asn Tyr Ala Ser Arg Pro Glu Ala Phe Asn
35 40 45
Thr Pro Phe Leu Asn Ile Asp Lys Leu Arg Ser Ala Phe Lys Ala
50 55 60
Asp Glu Phe Leu Asn Trp His Ala Leu Phe Glu Ser Ile Lys Arg
65 70 75
Lys Leu Pro Phe Leu Asn Trp Asp Ala Phe Pro Lys Leu Lys Gly
80 85 90
Leu Arg Ser Ala Thr Pro Asp Ala Gln
95

<210> 202
<211> 678
<212> DNA
<213> Homo sapiens

<400> 202
cagttctgaa atcaatggag ttaatttagg gaatacaaac cagccatggg 50
ggtggagatt gcctttgcct cagtgtattct cacctgcctc tccctttctg 100
cagcaggagt ctcccaggtt gttctttctcc agccagttcc aactcaggag 150
acaggtccca aggccatggg agatctctcc tgtggctttg ccggccactc 200
atgagagtgt ttttgtgtaa agtatTTTTT agaatactgt tgactttctc 250
atgatttaat aaccatcctt tgccaagttt tatgaggctt taggggaatg 300
tcaaccctca aatttttgtt atactagatg gcttccattt acccaccact 350
attttaaggt ccttttattt ttaggttcaa ggttcatttg acttgagaaa 400
gtgcccttct gcagcttcat tgattttgtt tatcttcact attaattgta 450
acgattaaaa aagaataaga gcacgcagac ctctaggaga atattttatc 500
cctgggtgco cctgacacat ttatgtagtg atcccacaaa tgtgattgtt 550
aattttaaag ttattttaat attagtacat tcagttgtga tgtaatatga 600
ataaccagaa tctatttctt aaaagttttg agtatatttt tcaactagat 650
atttgtatag aaagactgaa tagtgatg 678

<210> 203
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 203
 Met Gly Val Glu Ile Ala Phe Ala Ser Val Ile Leu Thr Cys Leu
 1 5 10 15
 Ser Leu Leu Ala Ala Gly Val Ser Gln Val Val Leu Leu Gln Pro
 20 25 30
 Val Pro Thr Gln Glu Thr Gly Pro Lys Ala Met Gly Asp Leu Ser
 35 40 45
 Cys Gly Phe Ala Gly His Ser
 50

<210> 204
 <211> 1917
 <212> DNA
 <213> Homo sapiens

<400> 204
 ggggaaatctg cagtaggtct gccggcgatg gagtgggtggg ctgctcgcc 50
 gcttcggctc tggctgctgt tgttcctcct gccctcagcg caggggccgc 100
 agaaggagtc aggttcaaaa tggaagtat ttattgacca aattaacagg 150
 tctttggaga attacgaacc atgttcaagt caaaactgca gctgctacca 200
 tgggtgtcata gaagaggatc taactccttt ccgaggaggc atctccagga 250
 agatgatggc agaggtatgc agacggaagc tagggaccca ctatcatgatc 300
 actaagaaca gactgtaccg ggaaaatgac tgcattgttc cctcaagggtg 350
 tagtgggtgt gagcacttta ttttggaagt gatcgggctg ctccctgaca 400
 tggagatggt gatcaatgta cgagattatc ctgaggttcc taaatggatg 450
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 tatcatgtat cctgcttgga cattttggga agggggacct gctgtttggc 550
 caatttatcc tacaggctct ggacggtggg acctcttcag agaagatctg 600
 gtaaggctcag cagcacagt gccatggaaa aagaaaaact ctacagcata 650
 tttccgagga tcaaggacaa gtccagaacg agatcctctc attctctgtg 700
 ctcgaaaaaa cccaaaactt gttgatgcag aatacaccaa aaaccaggcc 750
 tggaaatota tgaaagatac cttaggaaag ccagctgcta aggatgtcca 800
 tcttgggat cactgcaaat acaagtatct gtttaatttt cgaggcgtag 850
 ctgaagttt ccggtttaa cactcttcc tgtgtggctc actgttttc 900
 catgttggtg atgagtggct agaattcttc tatccacagc tgaagccatg 950
 ggttoactat atcccagtc aaacagatct ctccaatgct caagagctgt 1000

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 ctatagtagt catcatagga ccatagtcct ctttgtggca acagatctca 1250
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 agttcaactt ttggatgaa taaggaccag aaatcgtgag atgtggattt 1450
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 gaagtagtac aactcattgc tggaaattgt aaattattca agcggtgac 1650
 tctgtcaact tattttaatg taggaaacc tatgggggtt atgaaaaata 1700
 cttggggatc attctctgaa tgggtctaagg aagcggtagc catgccatgc 1750
 aatgatgtag gagttctctt ttgtaaaacc ataaactctg ttactcagga 1800
 ggtttctata atgccacata gaaagaggcc aattgcata gtaattattg 1850
 caattggatt tcagggtccc tttttgtgcc ttcatgccct acttcttaat 1900
 gcctctctaa agccaaa 1917

<210> 205
 <211> 392
 <212> PRT
 <213> Homo sapiens

<400> 205
 Met Glu Trp Trp Ala Ser Ser Pro Leu Arg Leu Trp Leu Leu Leu
 1 5 10 15
 Phe Leu Leu Pro Ser Ala Gln Gly Arg Gln Lys Glu Ser Gly Ser
 20 25 30
 Lys Trp Lys Val Phe Ile Asp Gln Ile Asn Arg Ser Leu Glu Asn
 35 40 45
 Tyr Glu Pro Cys Ser Ser Gln Asn Cys Ser Cys Tyr His Gly Val
 50 55 60
 Ile Glu Glu Asp Leu Thr Pro Phe Arg Gly Gly Ile Ser Arg Lys
 65 70 75
 Met Met Ala Glu Val Val Arg Arg Lys Leu Gly Thr His Tyr Gln
 80 85 90
 Ile Thr Lys Asn Arg Leu Tyr Arg Glu Asn Asp Cys Met Phe Pro

	95	100	105
Ser Arg Cys Ser Gly Val Glu His Phe Ile Leu Glu Val Ile Gly	110	115	120
Arg Leu Pro Asp Met Glu Met Val Ile Asn Val Arg Asp Tyr Pro	125	130	135
Gln Val Pro Lys Trp Met Glu Pro Ala Ile Pro Val Phe Ser Phe	140	145	150
Ser Lys Thr Ser Glu Tyr His Asp Ile Met Tyr Pro Ala Trp Thr	155	160	165
Phe Trp Glu Gly Gly Pro Ala Val Trp Pro Ile Tyr Pro Thr Gly	170	175	180
Leu Gly Arg Trp Asp Leu Phe Arg Glu Asp Leu Val Arg Ser Ala	185	190	195
Ala Gln Trp Pro Trp Lys Lys Lys Asn Ser Thr Ala Tyr Phe Arg	200	205	210
Gly Ser Arg Thr Ser Pro Glu Arg Asp Pro Leu Ile Leu Leu Ser	215	220	225
Arg Lys Asn Pro Lys Leu Val Asp Ala Glu Tyr Thr Lys Asn Gln	230	235	240
Ala Trp Lys Ser Met Lys Asp Thr Leu Gly Lys Pro Ala Ala Lys	245	250	255
Asp Val His Leu Val Asp His Cys Lys Tyr Lys Tyr Leu Phe Asn	260	265	270
Phe Arg Gly Val Ala Ala Ser Phe Arg Phe Lys His Leu Phe Leu	275	280	285
Cys Gly Ser Leu Val Phe His Val Gly Asp Glu Trp Leu Glu Phe	290	295	300
Phe Tyr Pro Gln Leu Lys Pro Trp Val His Tyr Ile Pro Val Lys	305	310	315
Thr Asp Leu Ser Asn Val Gln Glu Leu Leu Gln Phe Val Lys Ala	320	325	330
Asn Asp Asp Val Ala Gln Glu Ile Ala Glu Arg Gly Ser Gln Phe	335	340	345
Ile Arg Asn His Leu Gln Met Asp Asp Ile Thr Cys Tyr Trp Glu	350	355	360
Asn Leu Leu Ser Glu Tyr Ser Lys Phe Leu Ser Tyr Asn Val Thr	365	370	375
Arg Arg Lys Gly Tyr Asp Gln Ile Ile Pro Lys Met Leu Lys Thr	380	385	390
Glu Leu			

<210> 206

<211> 1425
<212> DNA
<213> Homo sapiens

<400> 206
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tttacctccc ttcgccact tcttgaggag atccggagt ctggtgtgct 150
ggatgccgc cagggatggc tggctgccct gcaggaccgc agcatccttg 200
ccccctggc atgggatctg gggctcctgc ttctatttgt tgggcagcac 250
agcctcatgg cagctgaaag agtgaaggca tggacatccc ggtactttgg 300
ggtccttcag aggtcactgt atgtggcctg cactgccctg gccttcgagc 350
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gtcgggctg agccatgggc cacctgggtg ccgctcctct gctttgtgct 450
ccatgtcatc tcctggctcc tcacttttag catcctcttc gtctttgact 500
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aaggaaagga tctgccctga ccactccctt ggcactgtta ctgtcctctg 1150
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aaagtcagcc tttttctaaa aaaaa 1425

<210> 207
 <211> 262
 <212> PRT
 <213> Homo sapiens

<400> 207
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 Ile Leu Ala Phe Gly Thr Gly Val Glu Phe Val Arg Phe Thr Ser
 20 25 30
 Leu Arg Pro Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp
 35 40 45
 Ala Arg Gln Gly Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu
 50 55 60
 Ala Pro Leu Ala Trp Asp Leu Gly Leu Leu Leu Phe Val Gly
 65 70 75
 Gln His Ser Leu Met Ala Ala Glu Arg Val Lys Ala Trp Thr Ser
 80 85 90
 Arg Tyr Phe Gly Val Leu Gln Arg Ser Leu Tyr Val Ala Cys Thr
 95 100 105
 Ala Leu Ala Leu Gln Leu Val Met Arg Tyr Trp Glu Pro Ile Pro
 110 115 120
 Lys Gly Pro Val Leu Trp Glu Ala Arg Ala Glu Pro Trp Ala Thr
 125 130 135
 Trp Val Pro Leu Leu Cys Phe Val Leu His Val Ile Ser Trp Leu
 140 145 150
 Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr Ala Glu Leu Met
 155 160 165
 Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu Gly Glu Pro
 170 175 180
 Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser His Leu
 185 190 195
 Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val Val
 200 205 210
 Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr
 215 220 225
 Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg
 230 235 240
 Tyr Leu Arg Ala Gln Leu Gln Arg Lys Leu His Leu Leu Ser Arg
 245 250 255
 Pro Gln Asp Gly Glu Ala Glu
 260

<210> 208
 <211> 2095
 <212> DNA

<213> Homo sapiens

<400> 208

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caacaaaaaa cttaagcttt aatttcattc tgaattccac agttttctta 200
gtcccttgga cccggttgac ctgttggtct tcccgcctgg ctgctctatc 250
acgtggtgct ctccgactac tcaccccgag tgtaaagaac ctgcggctcg 300
cgtgcttctg agctgctgtg gatggcctcg gctctctgga ctgtccttcc 350
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tctgagttt ctttgtgatg tggtagctca gccttcccca ctacaatgtg 450
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acaagacttt cacttccacac ttcgagagca tcaaaactgc tctcatcaaa 550
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agaatccatt tggatgtctg tcaactgaga cgtgtgattg cagcccatgg 1250
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 tttaaaatta cttcaacttt gtgtttttaa atgttttgac gatttcaata 1900
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950
 tacttaactg atcagtttat tattgataca tcaactccatt aatgtaaagt 2000
 cataggtcat tattgcatat cagtaacttc ttggactttg ttaaataatt 2050
 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 209
 <211> 331
 <212> PRT
 <213> Homo sapiens

<400> 209

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu	Pro	Ser	Arg	Met	Ser	Leu
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Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe
			20						25					30
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu
			35						40					45
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg
			50						55					60
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His
			65						70					75
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp
			80						85					90
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys
			95						100					105
Ser	Trp	Trp	Gly	Tyr	Glu	Val	Leu	Thr	Phe	Phe	Leu	Leu	Gly	Gln
			110						115					120
Glu	Ala	Glu	Lys	Glu	Asp	Lys	Met	Leu	Ala	Leu	Ser	Leu	Glu	Asp
			125						130					135
Glu	His	Leu	Leu	Tyr	Gly	Asp	Ile	Ile	Arg	Gln	Asp	Phe	Leu	Asp
			140						145					150
Thr	Tyr	Asn	Asn	Leu	Thr	Leu	Lys	Thr	Ile	Met	Ala	Phe	Arg	Trp
			155						160					165

Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp
 170 175
 Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu
 185 190
 Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile
 200 205 210
 Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser
 215 220 225
 Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly
 230 235 240
 Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu
 245 250 255
 Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val
 260 265 270
 Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu
 275 280
 Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys
 290 295 300
 Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu
 305 310 315
 Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His
 320 325 330

Tyr

<210> 210
 <211> 745
 <212> DNA
 <213> Homo sapiens

<400> 210
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 gtgtcaacaa tgaacacaat gtggccaatg ttgacaataa caacggatgg 200
 gactcctgga attccatctg ggattatgga aatggctttg ctgcaaccag 250
 actctttcaa aagaagacat gcattgtgca caaaatgaac aaggaagtea 300
 tgcctcccat tcaatccctt gatgcactgg tcaaggaaaaa gaagcttcag 350
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 cccaaacaaa gtogatgacc tgagcaagtt cggaaaaaac attgcaaaca 450
 tgtgtcgtgg gattccaaca tacatggctg aggagatgca agaggcaagc 500
 ctgttttttt actcaggaac gtgctacacg accagtgtac tatggattgt 550

ggacatttcc ttctgtggag acacgggtgga gaactaaaca attttttaa 600
gccactatgg atttagtcoat ctgaatatgc tgtgcagaaa aaatatgggc 650
tccagtggtt tttaaccatgt cattctgaaa tttttctcta ctagttagt 700
ttgatttctt taagtttcaa taaaatcatt tagcattgaa aaaaa 745

<210> 211
<211> 185
<212> PRT
<213> Homo sapiens

<400> 211
Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu
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Ala Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn
20 25 30
Asn Asn Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu
35 40 45
His Asn Val Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp
50 55 60
Asn Ser Ile Trp Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu
65 70 75
Phe Gln Lys Lys Thr Cys Ile Val His Lys Met Asn Lys Glu Val
80 85 90
Met Pro Ser Ile Gln Ser Leu Asp Ala Leu Val Lys Glu Lys Lys
95 100 105
Leu Gln Gly Lys Gly Pro Gly Gly Pro Pro Pro Lys Gly Leu Met
110 115 120
Tyr Ser Val Asn Pro Asn Lys Val Asp Asp Leu Ser Lys Phe Gly
125 130 135
Lys Asn Ile Ala Asn Met Cys Arg Gly Ile Pro Thr Tyr Met Ala
140 145 150
Glu Glu Met Gln Glu Ala Ser Leu Phe Phe Tyr Ser Gly Thr Cys
155 160 165
Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile Ser Phe Cys Gly
170 175 180
Asp Thr Val Glu Asn
185

<210> 212
<211> 1706
<212> DNA
<213> Homo sapiens

<400> 212
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tacagaagta tattaacttt ttaggagtaa tttctagttt ggattgtaat 100

aaaagt 1706

<210> 213

<211> 299

<212> FRT

<213> Homo sapiens

<400> 213

Met	Asn	Asp	Ser	Leu	Arg	Thr	Asn	Val	Phe	Val	Arg	Phe	Gln	Pro
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Glu	Thr	Ile	Ala	Cys	Ala	Cys	Ile	Tyr	Leu	Ala	Ala	Arg	Ala	Leu
				20					25					30
Gln	Ile	Pro	Leu	Pro	Thr	Arg	Pro	His	Trp	Phe	Leu	Leu	Phe	Gly
				35					40					45
Thr	Thr	Glu	Glu	Glu	Ile	Gln	Glu	Ile	Cys	Ile	Glu	Thr	Leu	Arg
				50					55					60
Leu	Tyr	Thr	Arg	Lys	Lys	Pro	Asn	Tyr	Glu	Leu	Leu	Glu	Lys	Glu
				65					70					75
Val	Glu	Lys	Arg	Lys	Val	Ala	Leu	Gln	Glu	Ala	Lys	Leu	Lys	Ala
				80					85					90
Lys	Gly	Leu	Asn	Pro	Asp	Gly	Thr	Pro	Ala	Leu	Ser	Thr	Leu	Gly
				95					100					105
Gly	Phe	Ser	Pro	Ala	Ser	Lys	Pro	Ser	Ser	Pro	Arg	Glu	Val	Lys
				110					115					120
Ala	Glu	Glu	Lys	Ser	Pro	Ile	Ser	Ile	Asn	Val	Lys	Thr	Val	Lys
				125					130					135
Lys	Glu	Pro	Glu	Asp	Arg	Gln	Gln	Ala	Ser	Lys	Ser	Pro	Tyr	Asn
				140					145					150
Gly	Val	Arg	Lys	Asp	Ser	Lys	Arg	Ser	Arg	Asn	Ser	Arg	Ser	Ala
				155					160					165
Ser	Arg	Ser	Arg	Ser	Arg	Thr	Arg	Ser	Arg	Ser	Arg	Ser	His	Thr
				170					175					180
Pro	Arg	Arg	His	Tyr	Asn	Asn	Arg	Arg	Ser	Arg	Ser	Gly	Thr	Tyr
				185					190					195
Ser	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	His	Ser	Glu	Ser	Pro
				200					205					210
Arg	Arg	His	His	Asn	His	Gly	Ser	Pro	His	Leu	Lys	Ala	Lys	His
				215					220					225
Thr	Arg	Asp	Asp	Leu	Lys	Ser	Ser	Asn	Arg	His	Gly	His	Lys	Arg
				230					235					240
Lys	Lys	Ser	Arg	Ser	Arg	Ser	Gln	Ser	Lys	Ser	Arg	Asp	His	Ser
				245					250					255
Asp	Ala	Ala	Lys	Lys	His	Arg	His	Glu	Arg	Gly	His	His	Arg	Asp
				260					265					270
Arg	Arg	Glu	Arg	Ser	Arg	Ser	Phe	Glu	Arg	Ser	His	Lys	Ser	Lys

His His Gly Gly Ser Arg Ser Gly His Gly Arg His Arg Arg
290 295

<210> 214

<211> 730

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 72-73, 85, 91, 127, 226, 268, 454, 484, 513, 566, 663

<223> unknown base

<400> 214

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ggattgtaat atgaaattat ttaaaagggc ttcgctcata tataggaaaa 200
tcgcataatg tcctagtatt aaattnttat tgcttactga tttttttgag 250
ttaagagttg ttatatgnta gaatatgagg atgtgaatat aaataagaga 300
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agaactggtt tgtttacatg caagcttata gttgaaatat ttttcaggaa 400
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agantatagc atgtgcttgc atctaccttg cagntagagc acttcagatt 500
ccgttgccaa ctngtcccca ttggtttctt ctttttggtta ctacagaaga 550
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agccaaaacta tgaattactg gaaaaagaag tagaaaaaag aaaagtagcc 650
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agccctttca accctgggtg gattttctcc 730

<210> 215

<211> 1807

<212> DNA

<213> Homo sapiens

<400> 215

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ccaatggcct tagtgaggag aagccactgt ctgtgcccg agatgccccg 300

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ccccacctgc	aggcctaact	gtgcctggcc	aaggcccg	tggagcagct	1100
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tccgagtcta	ctgctatgtg	acogtgggtg	gcttgcacta	cctgacccg	1200
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ccagcgctgc	ccccatgcgc	tctggggagg	acgaagtcca	gcagactgca	1350
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tggcgtcctg	gcctacctca	tctgggtgac	ggctgcctgc	cagctgctcg	1450
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gccggactcc	ccggcgcttc	cttcaccaca	gtgcctgacc	cgcgccccc	1650
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atgagggtcc	cgaggccatt	gtctccgaag	cgtatgtgcc	aggtttgagt	1750
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<210> 216

<211> 479
 <212> PRT
 <213> Homo sapiens

<400> 216

Met	Ala	Val	Leu	Gly	Val	Gln	Leu	Val	Val	Thr	Leu	Leu	Thr	Ala
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Thr	Leu	Met	His	Arg	Leu	Ala	Pro	His	Cys	Ser	Phe	Ala	Arg	Trp
				20					25					30
Leu	Leu	Cys	Asn	Gly	Ser	Leu	Phe	Arg	Tyr	Lys	His	Pro	Ser	Glu
				35					40					45
Glu	Glu	Leu	Arg	Ala	Leu	Ala	Gly	Lys	Pro	Arg	Pro	Arg	Gly	Arg
				50					55					60
Lys	Glu	Arg	Trp	Ala	Asn	Gly	Leu	Ser	Glu	Glu	Lys	Pro	Leu	Ser
				65					70					75
Val	Pro	Arg	Asp	Ala	Pro	Phe	Gln	Leu	Glu	Thr	Cys	Pro	Leu	Thr
				80					85					90
Thr	Val	Asp	Ala	Leu	Val	Leu	Arg	Phe	Phe	Leu	Glu	Tyr	Gln	Trp
				95					100					105
Phe	Val	Asp	Phe	Ala	Val	Tyr	Ser	Gly	Gly	Val	Tyr	Leu	Phe	Thr
				110					115					120
Glu	Ala	Tyr	Tyr	Tyr	Met	Leu	Gly	Pro	Ala	Lys	Glu	Thr	Asn	Ile
				125					130					135
Ala	Val	Phe	Trp	Cys	Leu	Leu	Thr	Val	Thr	Phe	Ser	Ile	Lys	Met
				140					145					150
Phe	Leu	Thr	Val	Thr	Arg	Leu	Tyr	Phe	Ser	Ala	Glu	Glu	Gly	Gly
				155					160					165
Glu	Arg	Ser	Val	Cys	Leu	Thr	Phe	Ala	Phe	Leu	Phe	Leu	Leu	Leu
				170					175					180
Ala	Met	Leu	Val	Gln	Val	Val	Arg	Glu	Glu	Thr	Leu	Glu	Leu	Gly
				185					190					195
Leu	Glu	Pro	Gly	Leu	Ala	Ser	Met	Thr	Gln	Asn	Leu	Glu	Pro	Leu
				200					205					210
Leu	Lys	Lys	Gln	Gly	Trp	Asp	Trp	Ala	Leu	Pro	Val	Ala	Lys	Leu
				215					220					225
Ala	Ile	Arg	Val	Gly	Leu	Ala	Val	Val	Gly	Ser	Val	Leu	Gly	Ala
				230					235					240
Phe	Leu	Thr	Phe	Pro	Gly	Leu	Arg	Leu	Ala	Gln	Thr	His	Arg	Asp
				245					250					255
Ala	Leu	Thr	Met	Ser	Glu	Asp	Arg	Pro	Met	Leu	Gln	Phe	Leu	Leu
				260					265					270
His	Thr	Ser	Phe	Leu	Ser	Pro	Leu	Phe	Ile	Leu	Trp	Leu	Trp	Thr
				275					280					285
Lys	Pro	Ile	Ala	Arg	Asp	Phe	Leu	His	Gln	Pro	Pro	Phe	Gly	Glu

actcgggagg cgtgtacctc ttcacagagg cctactacta catgtctggga 400
ccagccaagg agactaacat tgctgtgttc tgggtcctgc tcacagtgc 450
cttctccatc aagatgttcc tgacagtgc acggctgtac ttcagcgccg 500
aggagggggg tgagcgctct gtctgctca cctttgctt cctcttctg 550
ctgtgggcca tgctgggtgca agcg 574

<210> 218
<211> 2571
<212> DNA
<213> Homo sapiens

<400> 218
ggttcctaca tcctctcaco tgagaatcag agagcataat cttcttaccg 50
gcccgtgatt tattaacgtg gcttaatctg aaggttctca gtcaaattct 100
tttgtatcta ctgattgttg gggcatggca aggtttgctt aaaggagctt 150
ggctggtttg ggcccttgta gctgacagaa ggtggcagg gagaatgcag 200
cacactgctc ggagaatgaa ggcgcttctg ttgctggctc tgccttgctt 250
cagtcctgct aactacattg acaatgtggg caacctgcac ttctgtatt 300
cagaactctg taaaggtgoc tccactacg gctgaccaa agataggag 350
aggcgctcac aagatggctg tccagacggc tgtgogagcc tcacagccac 400
ggctccctcc ccagaggttt ctgcagctgc cacgatctcc ttaatgacag 450
acgagcctgg octagacaac cctgcctacg tgcctcggc agaggacggg 500
cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550
acggcccttt gagagatcca ctattagaag cagatcattt aaaaaataa 600
atcgagcttt gagtgttctt cgaaggacaa agagcgggag tgcatgtgcc 650
aaccatgccg accagggcag ggaaaattct gaaaacacca ctgcccctga 700
agtctttcca aggttgtacc acctgattcc agatggtgaa attaccagca 750
tcaagatcaa tcgagtagat ccagtgaaa gcctctctat taggctgggt 800
ggaggtagcg aaacccact ggtccatato attatccaac acatttatcg 850
tgatgggggt atcgccagag acggccggct actgccagga gacatcattc 900
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cccagatga cagctttcat gtgattctca aaaaagtag ccccgaggag 1100
cagcttggaa taaaactggt gcgcaagggt gatgagcctg gggttttcat 1150
cttcaatgtg ctggatggcg gtgtggcata tcgacatggt cagcttgagg 1200

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ccagaaagt	cggtctatct	gattcaggcc	agtgaagac	gtgttcaact	1300
cgctgtgtc	cgccagggtc	ggcagcgag	cctgacatc	tttcaggga	1350
ccgctggaa	cagcaatggc	agctggtccc	cagggccagg	ggagaggagc	1400
aacactcca	agcccccca	tcctacaatt	actgtcatg	agaaggtggt	1450
aaatatcaa	aaagacccc	gtgaatctct	cgcatgacc	gtcgcagggg	1500
gagcatcac	tagaagaatg	gatttgcta	tctatgtcat	cagtgttag	1550
cccgaggag	tcataagcag	agatggaag	ataaaacag	gtgacatttt	1600
gttgaatgt	gatggggctg	aactgacag	ggtcagccg	agtgaggcag	1650
tggcattatt	gaaaagaaca	tcactctcga	tagtactcaa	agcttttgaa	1700
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ctccaaacc	aacatggccc	cacccagtga	ctggtcccca	tcctgggtca	1800
tgtggctgga	attaccacgg	tgcttgata	actgtaaaga	tattgtatta	1850
cgaagaaca	cagctggaag	tctgggcttc	tgattgttag	gaggttatga	1900
agaatacct	ggaacaaaac	tttttttcat	caaatccatt	gttgaaggaa	1950
caccagcata	caatgatgga	agaattagat	gtggtgatat	tcttcttgct	2000
gtcaatggt	gaagtacatc	aggaatgata	catgcttgct	tggcaagact	2050
gctgaaagaa	ctaaagggaa	gaattactct	aactattggt	tcttggcctg	2100
gcacttttt	atagaatcaa	tgatgggtca	gaggaaaaac	gaaaaatcac	2150
aaataggcta	agaagtggaa	acactatatt	tatcttgta	gtttttatat	2200
ttaaaagaa	aatacattgt	aaaaatgtca	ggaaaagtat	gatcatctaa	2250
tgaagccag	ttacacctca	gaaaatatga	ttccaaaaaa	attaaaacta	2300
ctagtgtttt	ttcagtggtg	aggattttct	attactctac	aacattgttt	2350
atattttttc	tattcaataa	aaagccctaa	aacaactaaa	atgattgatt	2400
tgtatacccc	actgaattca	agctgattta	aatttaaaat	ttggtatatg	2450
ctgaagctcg	ccaagggtgc	attatggcca	tttttaattt	acagctaaaa	2500
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aaatattttt	cagaagttaa	a	2571		

<210> 219

<212> PRT

<400> 219

Met Lys Ala Leu Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala

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Asn Tyr Ile Asp	Asn Val Gly Asn Leu	His Phe Leu Tyr Ser	Glu 30
Leu Cys Lys Gly	Ala Ser His Tyr Gly	Leu Thr Lys Asp Arg	Lys 45
Arg Arg Ser Gln	Asp Gly Cys Pro Asp	Gly Cys Ala Ser Leu	Thr 60
Ala Thr Ala Pro	Ser Pro Glu Val Ser	Ala Ala Ala Thr Ile	Ser 75
Leu Met Thr Asp	Glu Pro Gly Leu Asp	Asn Pro Ala Tyr Val	Ser 90
Ser Ala Glu Asp	Gly Gln Pro Ala Ile	Ser Pro Val Asp Ser	Gly 105
Arg Ser Asn Arg	Thr Arg Ala Arg Pro	Phe Glu Arg Ser Thr	Ile 120
Arg Ser Arg Ser	Phe Lys Lys Ile Asn	Arg Ala Leu Ser Val	Leu 135
Arg Arg Thr Lys	Ser Gly Ser Ala Val	Ala Asn His Ala Asp	Gln 150
Gly Arg Glu Asn	Ser Glu Asn Thr Thr	Ala Pro Glu Val Phe	Pro 165
Arg Leu Tyr His	Leu Ile Pro Asp Gly	Glu Ile Thr Ser Ile	Lys 180
Ile Asn Arg Val	Asp Pro Ser Glu Ser	Leu Ser Ile Arg Leu	Val 195
Gly Gly Ser Glu	Thr Pro Leu Val His	Ile Ile Ile Gln His	Ile 210
Tyr Arg Asp Gly	Val Ile Ala Arg Asp	Gly Arg Leu Leu Pro	Gly 225
Asp Ile Ile Leu	Lys Val Asn Gly Met	Asp Ile Ser Asn Val	Pro 240
His Asn Tyr Ala	Val Arg Leu Leu Arg	Gln Pro Cys Gln Val	Leu 255
Trp Leu Thr Val	Met Arg Glu Gln Lys	Phe Arg Ser Arg Asn	Asn 270
Gly Gln Ala Pro	Asp Ala Tyr Arg Pro	Arg Asp Asp Ser Phe	His 285
Val Ile Leu Asn	Lys Ser Ser Pro Glu	Glu Gln Leu Gly Ile	Lys 300
Leu Val Arg Lys	Val Asp Glu Pro Gly	Val Phe Ile Phe Asn	Val 315
Leu Asp Gly Gly	Val Ala Tyr Arg His	Gly Gln Leu Glu Glu	Asn

320	325	330
Asp Arg Val Leu Ala Ile Asn Gly His	Asp Leu Arg Tyr Gly Ser	
335	340	345
Pro Glu Ser Ala Ala His Leu Ile Gln Ala Ser Glu Arg Arg Val		
350	355	360
His Leu Val Val Ser Arg Gln Val Arg Gln Arg Ser Pro Asp Ile		
365	370	375
Phe Gln Glu Ala Gly Trp Asn Ser Asn Gly Ser Trp Ser Pro Gly		
380	385	390
Pro Gly Glu Arg Ser Asn Thr Pro Lys Pro Leu His Pro Thr Ile		
395	400	405
Thr Cys His Glu Lys Val Val Asn Ile Gln Lys Asp Pro Gly Glu		
410	415	420
Ser Leu Gly Met Thr Val Ala Gly Gly Ala Ser His Arg Glu Trp		
425	430	435
Asp Leu Pro Ile Tyr Val Ile Ser Val Glu Pro Gly Gly Val Ile		
440	445	450
Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp Ile Leu Leu Asn Val		
455	460	465
Asp Gly Val Glu Leu Thr Glu Val Ser Arg Ser Glu Ala Val Ala		
470	475	480
Leu Leu Lys Arg Thr Ser Ser Ser Ile Val Leu Lys Ala Leu Glu		
485	490	495
Val Lys Glu Tyr Glu Pro Gln Glu Asp Cys Ser Ser Pro Ala Ala		
500	505	510
Leu Asp Ser Asn His Asn Met Ala Pro Pro Ser Asp Trp Ser Pro		
515	520	525
Ser Trp Val Met Trp Leu Glu Leu Pro Arg Cys Leu Tyr Asn Cys		
530	535	540
Lys Asp Ile Val Leu Arg Arg Asn Thr Ala Gly Ser Leu Gly Phe		
545	550	555
Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn Lys Pro Phe		
560	565	570
Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr Asn Asp Gly		
575	580	585
Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly Arg Ser		
590	595	600
Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu		
605	610	615
Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr		
620	625	630
Phe Leu		

<210> 220
 <211> 773
 <212> DNA
 <213> Homo sapiens

<400> 220
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 aggatagaag ctgcacaggg cagctttact tactccagca ccttctcttc 100
 ccaggcaaat ggtgctgacc atctttggga tacaatctca tggatacgag 150
 gtttttaaca tcatcagccc aagcaacaat ggtggcaatg ttcaggagac 200
 agtgacaatt gataatgaaa aaaataccgc catcgttaac atccatgcag 250
 gatcatgctc ttctaccaca atttttgact ataacatggt ctacattgca 300
 tccagggtgc tctcccgaag agcctgcttt atoctgaaga tggaccatca 350
 gaacatccct cctctgaaca atctccaatg gtacatctat gagaaacagg 400
 ctctggacaa catgtttctc aacaaataca cctgggtcaa gtacaacctt 450
 ctggagtctc tgatcaaaga cgtggattgg ttctgcttg ggtcacccat 500
 tgagaaactc tgcaaacata tccctttgta taagggggaa gtggttgaaa 550
 acacacataa tgtcgggtgt ggaggctgtg caaaggctgg gtcctgtggc 600
 atcttgggaa tttcaatctg tgcagacatt catgtttagg atgattagcc 650
 ctctgttttt atcttttcaa agaaatacat ccttggttta cactcaaaa 700
 tcaaattaaa ttctttccca atgcccacac taattttgag attcagtcag 750
 aaaatataaa tgcgttattt ata 773

<210> 221
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 221
 Met Lys Ile Leu Val Ala Phe Leu Val Val Leu Thr Ile Phe Gly
 1 5 10 15
 Ile Gln Ser His Gly Tyr Glu Val Phe Asn Ile Ile Ser Pro Ser
 20 25 30
 Asn Asn Gly Gly Asn Val Gln Glu Thr Val Thr Ile Asp Asn Glu
 35 40 45
 Lys Asn Thr Ala Ile Val Asn Ile His Ala Gly Ser Cys Ser Ser
 50 55 60
 Thr Thr Ile Phe Asp Tyr Lys His Gly Tyr Ile Ala Ser Arg Val
 65 70 75
 Leu Ser Arg Arg Ala Cys Phe Ile Leu Lys Met Asp His Gln Asn
 80 85 90

Ile Pro Pro Leu Asn Asn Leu Gln Trp Tyr Ile Tyr Glu Lys Gln
95 100 105

Ala Leu Asp Asn Met Phe Ser Asn Lys Tyr Thr Trp Val Lys Tyr
110 115 120

Asn Pro Leu Glu Ser Leu Ile Lys Asp Val Asp Trp Phe Leu Leu
125 130 135

Gly Ser Pro Ile Glu Lys Leu Cys Lys His Ile Pro Leu Tyr Lys
140 145 150

Gly Glu Val Val Glu Asn Thr His Asn Val Gly Ala Gly Gly Cys
155 160 165

Ala Lys Ala Gly Leu Leu Gly Ile Leu Gly Ile Ser Ile Cys Ala
170 175 180

Asp Ile His Val

<210> 222
<211> 992
<212> DNA
<213> Homo sapiens

<400> 222
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accacacgag gcatggggct cctggggctg ttctgcttgg ccgtgctggc 100
tgccagcagc ttctccaagg cacggggagga agaaattacc cctgtggtct 150
ccattgccta ccaagtctcg gaagttttcc ccaaaggccg ctgggtgctc 200
ataacctgct gtgcacccca gccaccaccg cccatcacct attccctctg 250
tggaaccaag aacatcaagg tggccaagaa ggtggtgaag accacagagc 300
cggcctcctt caacctcaac gtcacactca agtccagtc agacctgctc 350
acctacttct gccgggctgc ctccacctca ggtgcccatg tggacagtgc 400
caggctacag atgcactggg agctgtggtc caagccagtg tctgagctgc 450
gggccaactt cactctgcag gacagagggg cagggcccag ggtgagatg 500
atttgccagg cgtcctcggg cagcccacct atcaccaaca gcctgatcgg 550
gaaggatggg cagggtccacc tgcagcagag accatgccac aggcagcctg 600
ccaacttctc cttctgccc agccagacat cggactgggt ctggtgccac 650
gctgcaaaca acgccaatgt ccagcacagc gccctcacag tggtgcccc 700
aggtggtgac cagaagatgg aggactggca ggggtcccctg gagagcccc 750
tccttgctt gccgctctac aggagcacc gccgtctgag tgaagaggag 800
tttgggggtg tcaggatagg gaatggggag gtcagaggac gcaaagcagc 850
agccatgtag aatgaacctg ccagagagcc aagcaggcca gaggactgca 900

ggccatcagc gtgcactgtt cgtatttggg gttcatgcaa aatgagtgtg 950
 ttttagctgc tcttgccaca aaaaaaaaaa aaaaaaaaaa aa 992

<210> 223
 <211> 265
 <212> PRT
 <213> Homo sapiens

<400> 223
 Met Gly Leu Pro Gly Leu Phe Cys Leu Ala Val Leu Ala Ala Ser
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 Ser Phe Ser Lys Ala Arg Glu Glu Glu Ile Thr Pro Val Val Ser
 20 25 30
 Ile Ala Tyr Lys Val Leu Glu Val Phe Pro Lys Gly Arg Trp Val
 35 40 45
 Leu Ile Thr Cys Cys Ala Pro Gln Pro Pro Pro Pro Ile Thr Tyr
 50 55 60
 Ser Leu Cys Gly Thr Lys Asn Ile Lys Val Ala Lys Lys Val Val
 65 70 75
 Lys Thr His Glu Pro Ala Ser Phe Asn Leu Asn Val Thr Leu Lys
 80 85 90
 Ser Ser Pro Asp Leu Leu Thr Tyr Phe Cys Arg Ala Ser Ser Thr
 95 100 105
 Ser Gly Ala His Val Asp Ser Ala Arg Leu Gln Met His Trp Glu
 110 115 120
 Leu Trp Ser Lys Pro Val Ser Glu Leu Arg Ala Asn Phe Thr Leu
 125 130 135
 Gln Asp Arg Gly Ala Gly Pro Arg Val Glu Met Ile Cys Gln Ala
 140 145 150
 Ser Ser Gly Ser Pro Pro Ile Thr Asn Ser Leu Ile Gly Lys Asp
 155 160 165
 Gly Gln Val His Leu Gln Gln Arg Pro Cys His Arg Gln Pro Ala
 170 175 180
 Asn Phe Ser Phe Leu Pro Ser Gln Thr Ser Asp Trp Phe Trp Cys
 185 190 195
 Gln Ala Ala Asn Asn Ala Asn Val Gln His Ser Ala Leu Thr Val
 200 205 210
 Val Pro Pro Gly Gly Asp Gln Lys Met Glu Asp Trp Gln Gly Pro
 215 220 225
 Leu Glu Ser Pro Ile Leu Ala Leu Pro Leu Tyr Arg Ser Thr Arg
 230 235 240
 Arg Leu Ser Glu Glu Glu Phe Gly Gly Phe Arg Ile Gly Asn Gly
 245 250 255
 Glu Val Arg Gly Arg Lys Ala Ala Ala Met
 260 265

<210> 224
<211> 1297
<212> DNA
<213> Homo sapiens

<400> 224
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cttctgctcc tgtgtccgg ctggtcccg gctggcgag ccgacctca 100
ctctctttgc tatgacatca ccgtcatccc taagttcaga cctggaccac 150
gggtgtgtgc ggttcaaggc caggtggatg aaaagacttt tcttactat 200
gactgtgcca acaagacagt cacacctgtc agtccctgg ggaagaaat 250
aaatgtcaca acggcctgga aagcacagaa ccagtagct agagaggttg 300
tggacatact tacagagcaa ctgcgtgaca ttcagctgga gaattacaca 350
cccaaggaa cctcacct gcaggcaagg atgtcttgtg agcagaaagc 400
tgaaggacac agcagtggat ctggcagtt cagtttcgat ggcagatct 450
tcctctctt tgactcagag aagagaatgt ggacaacggt tcatctgga 500
gccagaaaga tgaagaaaa gtgggagaat gacaagggtg tggccatgtc 550
cttcattac ttctcaatgg gagactgtat aggatggctt gaggacttct 600
tgatgggcat ggacagacc ctggagccaa gtgcaggagc accactcgc 650
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ctacggtgta tgtccagtg cctccagcag atcatgatga catcatggac 900
ccaatagctc attcactgcc ttgattcctt ttgccaacaa tttaccagc 950
agttatactt aacatattat gcaattttct ctgtgtgcta cctgatggaa 1000
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cttctctttt tgtttgaaa atcaagtagt tctttgaatg atgactcttt 1100
tcttgcaaat gatattgtca gtaaaataat cacttagac ttcagacctc 1150
tggggattct ttccgtgtc tgaaagagaa tttttaaat atttaataag 1200
aaaaaattta tattaatgat tgttctctt agtaatttat tgttctgtac 1250
tgatatttaa ataaagatt ctatttccca aaaaaaaaa aaaaaaa 1297

<210> 225
<211> 246
<212> PRT
<213> Homo sapiens

<400> 225

Met	Ala	Ala	Ala	Ala	Ala	Thr	Lys	Ile	Leu	Leu	Cys	Leu	Pro	Leu
1					5				10					15
Leu	Leu	Leu	Leu	Ser	Gly	Trp	Ser	Arg	Ala	Gly	Arg	Ala	Asp	Pro
				20					25					30
His	Ser	Leu	Cys	Tyr	Asp	Ile	Thr	Val	Ile	Pro	Lys	Phe	Arg	Pro
				35					40					45
Gly	Pro	Arg	Trp	Cys	Ala	Val	Gln	Gly	Gln	Val	Asp	Glu	Lys	Thr
				50					55					60
Phe	Leu	His	Tyr	Asp	Cys	Gly	Asn	Lys	Thr	Val	Thr	Pro	Val	Ser
				65					70					75
Pro	Leu	Gly	Lys	Lys	Leu	Asn	Val	Thr	Thr	Ala	Trp	Lys	Ala	Gln
				80					85					90
Asn	Pro	Val	Leu	Arg	Glu	Val	Val	Asp	Ile	Leu	Thr	Glu	Gln	Leu
				95					100					105
Arg	Asp	Ile	Gln	Leu	Glu	Asn	Tyr	Thr	Pro	Lys	Glu	Pro	Leu	Thr
				110					115					120
Leu	Gln	Ala	Arg	Met	Ser	Cys	Glu	Gln	Lys	Ala	Glu	Gly	His	Ser
				125					130					135
Ser	Gly	Ser	Trp	Gln	Phe	Ser	Phe	Asp	Gly	Gln	Ile	Phe	Leu	Leu
				140					145					150
Phe	Asp	Ser	Glu	Lys	Arg	Met	Trp	Thr	Thr	Val	His	Pro	Gly	Ala
				155					160					165
Arg	Lys	Met	Lys	Glu	Lys	Trp	Glu	Asn	Asp	Lys	Val	Val	Ala	Met
				170					175					180
Ser	Phe	His	Tyr	Phe	Ser	Met	Gly	Asp	Cys	Ile	Gly	Trp	Leu	Glu
				185					190					195
Asp	Phe	Leu	Met	Gly	Met	Asp	Ser	Thr	Leu	Glu	Pro	Ser	Ala	Gly
				200					205					210
Ala	Pro	Leu	Ala	Met	Ser	Ser	Gly	Thr	Thr	Gln	Leu	Arg	Ala	Thr
				215					220					225
Ala	Thr	Thr	Leu	Ile	Leu	Cys	Cys	Leu	Leu	Ile	Ile	Leu	Pro	Cys
				230					235					240
Phe	Ile	Leu	Pro	Gly	Ile									
				245										

<210> 226

<211> 735

<212> DNA

<213> Homo sapiens

<400> 226

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caagttatat accgtggaat ggagttgato ccaaccataa catcgtggag 150

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ggttttaatt ttggtggtag cccctaccca attctggtgt ggctttcttt 200
gcagaggatt ccaccttcaa aatcatgaac tctggctgtt gatcaaaaga 250
gaatttggat tctactctaa aagtcaatat aggacttggc aaaagaagct 300
agcagaagac tcaacctggc ctcccataaa caggacagat tattcaggtg 350
atggcaaaaa tggattctac atcaacggag gctatgaaag ccatgaacag 400
attccaaaaa gaaaactcaa attgggaggc caaccacag aacagcattt 450
ctggggcagg ctgtaatcag aattgtgtc gtacatgctc aacagcattg 500
cttttttccc caaaattaac acattgtgga gaagtgatga tactctccc 550
ttacctttcc tctctccatt caagcattca aagtatat tcaatgaatt 600
aaaccttgca gcaagggacc ttagataggc ttattctgac tgtatgctt 650
accaatgaga gaaaaaaatg catttcctgt atcatcctt tcaataaact 700
gtattcattt tgaaaaaaa aaaaaaaaaa aaaaa 735

<210> 227
<211> 115
<212> PRT
<213> Homo sapiens

<400> 227
Met Glu Leu Ile Pro Thr Ile Thr Ser Trp Arg Val Leu Ile Leu
1 5 10 15
Val Val Ala Leu Thr Gln Phe Trp Cys Gly Phe Leu Cys Arg Gly
20 25 30
Phe His Leu Gln Asn His Glu Leu Trp Leu Ile Lys Arg Glu
35 40 45
Phe Gly Phe Tyr Ser Lys Ser Gln Tyr Arg Thr Trp Gln Lys Lys
50 55 60
Leu Ala Glu Asp Ser Thr Trp Pro Pro Ile Asn Arg Thr Asp Tyr
65 70 75
Ser Gly Asp Gly Lys Asn Gly Phe Tyr Ile Asn Gly Gly Tyr Glu
80 85 90
Ser His Glu Gln Ile Pro Lys Arg Lys Leu Lys Leu Gly Gly Gln
95 100 105
Pro Thr Glu Gln His Phe Trp Ala Arg Leu
110 115

<210> 228
<211> 2185
<212> DNA
<213> Homo sapiens

<400> 228
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cacaccatga agctcttgtg gcaggtaact gtgcaccacc acacctggaa 100

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 gtgcagccat cgtgctgcc gctcagccg ggccccagaa ctgcccctcc 200
 gtttgctcgt gcagtaacca gttcagcaag gtggtgtgca cgcgccccgg 250
 cctctccgag gtcccgaggt gtattccctc gaacaccocg tacctcaacc 300
 tcatggagaa caacatccag atgatccagg ccgacacctt ccgccacctc 350
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<210> 229
 <211> 653
 <212> PRT
 <213> Homo sapiens

<400> 229
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 Ala Ile Leu Leu Pro Phe Val Tyr Leu Thr Ala Gln Val Trp Ile
 20 25 30
 Leu Cys Ala Ala Ile Ala Ala Ala Ser Ala Gly Pro Gln Asn
 35 40 45
 Cys Pro Ser Val Cys Ser Cys Ser Asn Gln Phe Ser Lys Val Val
 50 55 60
 Cys Thr Arg Arg Gly Leu Ser Glu Val Pro Gln Gly Ile Pro Ser
 65 70 75
 Asn Thr Arg Tyr Leu Asn Leu Met Glu Asn Asn Ile Gln Met Ile
 80 85 90
 Gln Ala Asp Thr Phe Arg His Leu His His Leu Glu Val Leu Gln
 95 100 105
 Leu Gly Arg Asn Ser Ile Arg Gln Ile Glu Val Gly Ala Phe Asn
 110 115 120
 Gly Leu Ala Ser Leu Asn Thr Leu Glu Leu Phe Asp Asn Trp Leu
 125 130 135
 Thr Val Ile Pro Ser Gly Ala Phe Glu Tyr Leu Ser Lys Leu Arg
 140 145 150
 Glu Leu Trp Leu Arg Asn Asn Pro Ile Glu Ser Ile Pro Ser Tyr
 155 160 165
 Ala Phe Asn Arg Val Pro Ser Leu Met Arg Leu Asp Leu Gly Glu
 170 175 180
 Leu Lys Lys Leu Glu Tyr Ile Ser Glu Gly Ala Phe Glu Gly Leu

185	190	195
Phe Asn Leu Lys Tyr Leu Asn Leu Gly Met Cys Asn Ile Lys Asp	200	210
Met Pro Asn Leu Thr Pro Leu Val Gly Leu Glu Glu Leu Glu Met	215	225
Ser Gly Asn His Phe Pro Glu Ile Arg Pro Gly Ser Phe His Gly	230	240
Leu Ser Ser Leu Lys Lys Leu Trp Val Met Asn Ser Gln Val Ser	245	255
Leu Ile Glu Arg Asn Ala Phe Asp Gly Leu Ala Ser Leu Val Glu	260	270
Leu Asn Leu Ala His Asn Asn Leu Ser Ser Leu Pro His Asp Leu	275	285
Phe Thr Pro Leu Arg Tyr Leu Val Glu Leu His Leu His His Asn	290	300
Pro Trp Asn Cys Asp Cys Asp Ile Leu Trp Leu Ala Trp Trp Leu	305	315
Arg Glu Tyr Ile Pro Thr Asn Ser Thr Cys Cys Gly Arg Cys His	320	330
Ala Pro Met His Met Arg Gly Arg Tyr Leu Val Glu Val Asp Gln	335	345
Ala Ser Phe Gln Cys Ser Ala Pro Phe Ile Met Asp Ala Pro Arg	350	360
Asp Leu Asn Ile Ser Glu Gly Arg Met Ala Glu Leu Lys Cys Arg	365	375
Thr Pro Pro Met Ser Ser Val Lys Trp Leu Leu Pro Asn Gly Thr	380	390
Val Leu Ser His Ala Ser Arg His Pro Arg Ile Ser Val Leu Asn	395	405
Asp Gly Thr Leu Asn Phe Ser His Val Leu Leu Ser Asp Thr Gly	410	420
Val Tyr Thr Cys Met Val Thr Asn Val Ala Gly Asn Ser Asn Ala	425	435
Ser Ala Tyr Leu Asn Val Ser Thr Ala Glu Leu Asn Thr Ser Asn	440	450
Tyr Ser Phe Phe Thr Thr Val Thr Val Glu Thr Thr Glu Ile Ser	455	465
Pro Glu Asp Thr Thr Arg Lys Tyr Lys Pro Val Pro Thr Thr Ser	470	480
Thr Gly Tyr Gln Pro Ala Tyr Thr Thr Ser Thr Thr Val Leu Ile	485	495
Gln Thr Thr Arg Val Pro Lys Gln Val Ala Val Pro Ala Thr Asp		

	500		505		510
Thr Thr Asp Lys	Met Gln Thr Ser Leu Asp Glu Val Met Lys Thr				
	515		520		525
Thr Lys Ile Ile	Ile Gly Cys Phe Val Ala Val Thr Leu Leu Ala				
	530		535		540
Ala Ala Met Leu	Ile Val Phe Tyr Lys Leu Arg Lys Arg His Gln				
	545		550		555
Gln Arg Ser Thr	Val Thr Ala Ala Arg Thr Val Glu Ile Ile Gln				
	560		565		570
Val Asp Glu Asp	Ile Pro Ala Ala Thr Ser Ala Ala Ala Thr Ala				
	575		580		585
Ala Pro Ser Gly	Val Ser Gly Glu Gly Ala Val Val Leu Pro Thr				
	590		595		600
Ile His Asp His	Ile Asn Tyr Asn Thr Tyr Lys Pro Ala His Gly				
	605		610		615
Ala His Trp Thr	Glu Asn Ser Leu Gly Asn Ser Leu His Pro Thr				
	620		625		630
Val Thr Thr Ile	Ser Glu Pro Tyr Ile Ile Gln Thr His Thr Lys				
	635		640		645
Asp Lys Val Gln	Glu Thr Gln Ile				
	650				

<210> 230
 <211> 2846
 <212> DNA
 <213> Homo sapiens

<400> 230
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 tacacagtc aataatgaagc ctgccctgga gcagagtgga atatcatgtg 150
 tggggagtg tgtgaatatg atcagattga gtgcgtctgc cccgaaaaga 200
 gggaagtgcgt ggggtatacc atcccttgct gcaggaatga ggagaatgag 250
 tgtgactcct gcctgatcca ccaggttgtt accatctttg aaaactgcaa 300
 gagctgccga aatggctcat ggggggggtac ctggatgac ttetatgtga 350
 aggggttcta ctgtgcagag tgcgagcagc gctggtaagg aggagatgc 400
 atgcgatgtg gccaggttct gcgagcccca aagggtcaga ttttgttgga 450
 aagctatccc ctaaatgctc actgtgaatg gaccattcat gctaaacctg 500
 ggtttgtcat coaactaaga tttgtcatgt tgagtctgga gtttgactac 550
 atgtgccagt atgactatgt tgaggttcgt gatggagaca accgcgatgg 600
 ccagatcatc aagcgtgtct gtggcaacga gcggccagct cctatccaga 650

gcataaggatc	ctcactccac	gtcctcttcc	actccgatgg	ctccaagaat	700
tttgacgggt	tccatgccat	ttatgaggag	atcacagcat	gtcctcctac	750
cccttgtttc	catgacggca	cgtgcgtcct	tgacaaggct	ggatctttaca	800
agtgtgcctg	cttggcaggc	tatactgggc	agcgctgtga	aaatctcctt	850
gaagaaagaa	actgctcaga	ccctgggggc	ccagtcfaat	ggtagcagaa	900
aataacaggg	ggccctgggc	ttatcaacgg	acgccaatgt	aaaattggca	950
ccgtgggtgc	tttcttttgt	aacaactcct	atgttcttag	tggcaatgag	1000
aaaagaactt	gccagcagaa	tggagagtgg	tcagggaaac	agcccactcg	1050
cataaaagcc	tgcgcagaa	caaagatttc	agacctgggt	agaaggagag	1100
ttcttcgat	gcaggttcag	tcaagggaga	caccattaca	ccagctatac	1150
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ggttgcgctg	gccctggcag	gcagccatct	acaggaggac	cagcgggggt	1450
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gtccagccca	tctgcctcgc	tgccagtctg	gatctcagca	cttccttcca	1800
ggagtcocac	atcactgtgg	ctggctggaa	tgtcctggca	gacgtgagga	1850
gccctggcct	caagaacgac	acactgcgct	ctgggggtgt	cagtgtgggt	1900
gactcgtctg	tgtgtgagga	gcagcatgag	gaccatggca	tccagtgag	1950
tgtcactgat	aacatgttct	gtgccagctg	ggaacccact	gcccttctct	2000
atatctgcac	tgcagagaca	ggaggcatcg	cggctgtgtc	cttcccggga	2050
cgagcatctc	ctgagccacg	ctggcatctg	atgggactgg	tcagctggag	2100
ctatgataaa	acatgcagcc	acaggctctc	cactgccttc	accaaggtgc	2150
tgccttttaa	agactggatt	gaaagaaata	tgaatgaac	catgctcatg	2200
cactccttga	gaagtgttct	tgtatatccg	tctgtactgt	tgtcattgcg	2250

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cattgctggt aggctgatgc cgcgtccact actaggacag ccaattggaa 2400
gatgccaggg cttgcaagaa gtaagtttct tcaaagaaga ccatatacaa 2450
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gtttctgaac tacaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2750
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2800
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2846

<210> 231
<211> 720
<212> PRT
<213> Homo sapiens

<400> 231
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Leu Leu Leu Ile Ser Ser Leu Pro Arg Glu Tyr Thr Val Ile Asn
20 25 30
Glu Ala Cys Pro Gly Ala Glu Trp Asn Ile Met Cys Arg Glu Cys
35 40 45
Cys Glu Tyr Asp Gln Ile Glu Cys Val Cys Pro Gly Lys Arg Glu
50 55 60
Val Val Gly Tyr Thr Ile Pro Cys Cys Arg Asn Glu Glu Asn Glu
65 70 75
Cys Asp Ser Cys Leu Ile His Pro Gly Cys Thr Ile Phe Glu Asn
80 85 90
Cys Lys Ser Cys Arg Asn Gly Ser Trp Gly Gly Thr Leu Asp Asp
95 100 105
Phe Tyr Val Lys Gly Phe Tyr Cys Ala Glu Cys Arg Ala Gly Trp
110 115 120
Tyr Gly Gly Asp Cys Met Arg Cys Gly Gln Val Leu Arg Ala Pro
125 130 135
Lys Gly Gln Ile Leu Leu Glu Ser Tyr Pro Leu Asn Ala His Cys
140 145 150
Glu Trp Thr Ile His Ala Lys Pro Gly Phe Val Ile Gln Leu Arg
155 160 165

Phe Val Met Leu	Ser Leu Glu Phe Asp	Tyr Met Cys Gln Tyr Asp
170	175	180
Tyr Val Glu Val	Arg Asp Gly Asp Asn	Arg Asp Gly Gln Ile Ile
185	190	195
Lys Arg Val Cys	Gly Asn Glu Arg Pro	Ala Pro Ile Gln Ser Ile
200	205	210
Gly Ser Ser Leu	His Val Leu Phe His	Ser Asp Gly Ser Lys Asn
215	220	225
Phe Asp Gly Phe	His Ala Ile Tyr Glu	Glu Ile Thr Ala Cys Ser
230	235	240
Ser Ser Pro Cys	Phe His Asp Gly Thr	Cys Val Leu Asp Lys Ala
245	250	255
Gly Ser Tyr Lys	Cys Ala Cys Leu Ala	Gly Tyr Thr Gly Gln Arg
260	265	270
Cys Glu Asn Leu	Leu Glu Glu Arg Asn	Cys Ser Asp Pro Gly Gly
275	280	285
Pro Val Asn Gly	Tyr Gln Lys Ile Thr	Gly Gly Pro Gly Leu Ile
290	295	300
Asn Gly Arg His	Ala Lys Ile Gly Thr	Val Val Ser Phe Phe Cys
305	310	315
Asn Asn Ser Tyr	Val Leu Ser Gly Asn	Glu Lys Arg Thr Cys Gln
320	325	330
Gln Asn Gly Glu	Trp Ser Gly Lys Gln	Pro Ile Cys Ile Lys Ala
335	340	345
Cys Arg Glu Pro	Lys Ile Ser Asp Leu	Val Arg Arg Arg Val Leu
350	355	360
Pro Met Gln Val	Gln Ser Arg Glu Thr	Pro Leu His Gln Leu Tyr
365	370	375
Ser Ala Ala Phe	Ser Lys Gln Lys Leu	Gln Ser Ala Pro Thr Lys
380	385	390
Lys Pro Ala Leu	Pro Phe Gly Asp Leu	Pro Met Gly Tyr Gln His
395	400	405
Leu His Thr Gln	Leu Gln Tyr Glu Cys	Ile Ser Pro Phe Tyr Arg
410	415	420
Arg Leu Gly Ser	Ser Arg Arg Thr Cys	Leu Arg Thr Gly Lys Trp
425	430	435
Ser Gly Arg Ala	Pro Ser Cys Ile Pro	Ile Cys Gly Lys Ile Glu
440	445	450
Asn Ile Thr Ala	Pro Lys Thr Gln Gly	Leu Arg Trp Pro Trp Gln
455	460	465
Ala Ala Ile Tyr	Arg Arg Thr Ser Gly	Val His Asp Gly Ser Leu
470	475	480

His Lys Gly Ala	Trp Phe Leu Val Cys Ser Gly Ala Leu Val Asn	485	490	495
Glu Arg Thr Val	Val Val Ala Ala His Cys Val Thr Asp Leu Gly	500	505	510
Lys Val Thr Met	Ile Lys Thr Ala Asp Leu Lys Val Val Leu Gly	515	520	525
Lys Phe Tyr Arg	Asp Asp Asp Arg Asp Glu Lys Thr Ile Gln Ser	530	535	540
Leu Gln Ile Ser	Ala Ile Ile Leu His Pro Asn Tyr Asp Pro Ile	545	550	555
Leu Leu Asp Ala	Asp Ile Ala Ile Leu Lys Leu Leu Asp Lys Ala	560	565	570
Arg Ile Ser Thr	Arg Val Gln Pro Ile Cys Leu Ala Ala Ser Arg	575	580	585
Asp Leu Ser Thr	Ser Phe Gln Glu Ser His Ile Thr Val Ala Gly	590	595	600
Trp Asn Val Leu	Ala Asp Val Arg Ser Pro Gly Phe Lys Asn Asp	605	610	615
Thr Leu Arg Ser	Gly Val Val Ser Val Val Asp Ser Leu Leu Cys	620	625	630
Glu Glu Gln His	Glu Asp His Gly Ile Pro Val Ser Val Thr Asp	635	640	645
Asn Met Phe Cys	Ala Ser Trp Glu Pro Thr Ala Pro Ser Asp Ile	650	655	660
Cys Thr Ala Glu	Thr Gly Gly Ile Ala Ala Val Ser Phe Pro Gly	665	670	675
Arg Ala Ser Pro	Glu Pro Arg Trp His Leu Met Gly Leu Val Ser	680	685	690
Trp Ser Tyr Asp	Lys Thr Cys Ser His Arg Leu Ser Thr Ala Phe	695	700	705
Thr Lys Val Leu	Pro Phe Lys Asp Trp Ile Glu Arg Asn Met Lys	710	715	720

<210> 232

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 232

aggttcgtga tggagacaac cgcg 24

<210> 233

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

 <400> 233
 tgTcaaggac gcaCTgccgt catg 24

 <210> 234
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 234
 Tggccagatc atcaagcgtg tctgtggcaa cgagcggcca gctccatccc 50

 <210> 235
 <211> 1964
 <212> DNA
 <213> Homo sapiens

 <400> 235
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 agctcaactt gaagctttct Tgcctgcagt gaagcagaga gatagatatt 100
 attcactgta taaaaaacat gggcttcaac ctgactttcc acctttccta 150
 caaatccga tTactgtTgc Tgttgacttt gtgcctgaca gtggTgggT 200
 gggccaccag taactacttc gtgggtgcca ttcaagagat tcttaaagca 250
 aaggagtTca Tggctaattt ccataagacc ctcatTTTgg ggaagggaaa 300
 aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350
 ctTctgtTgc tctTtacctc agaggccaga gcaagctcat tttcaaacca 400
 gatctcaactt Tggaagaggt acaggcagaa aatcccaaag Tgtccagagg 450
 ccggtatcgc cctcaggaat gTaaagcttt acagagggtc gccatccctc 500
 ttccccaccg gaacagagag aaacacctga Tgtacctgct ggaacatctg 550
 catcccttcc Tgcagaggca gcagctggat tatggcatct acgtcatcca 600
 ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650
 atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700
 gtggacctgg Taccgagaa Tgactttaac cttTacaagt gtgaggagca 750
 tccccagcat ctggtggTtg gcaggaaacag cactgggtac aggttacgTt 800
 acagtggata ttttgggggt gttactgccc taagcagaga gcagTttttc 850
 aaggTgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900
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aatgagggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050
ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100
aacacaatcc tttatatatc aacatcacag tggatttctg gtttgggtgca 1150
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ttatataaaa ggtagactca aaggataaaa tgaacgctat ttgaggactc 1450
tggttgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500
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cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850
tgtaaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900
acataattaac taataataaa tatgtctatc aaatacctct gtagtaaaa 1950
gtgaaaaagc aaaa 1964

<210> 236

<211> 344

<212> PRT

<213> Homo sapiens

<220>

<221> Signal peptide

<222> 1-27

<223> Signal peptide

<220>

<221> N-glycosylation sites

<222> 4-7, 220-223, 335-338

<223> N-glycosylation sites

<220>

<221> Xylose isomerase proteins

<222> 191-201

<223> Xylose isomerase proteins

<400> 236

Met	Gly	Phe	Asn	Leu	Thr	Phe	His	Leu	Ser	Tyr	Lys	Phe	Arg	Leu
1				5					10					15

Leu	Leu	Leu	Leu	Thr	Leu	Cys	Leu	Thr	Val	Val	Gly	Trp	Ala	Thr	20	25	30
Ser	Asn	Tyr	Phe	Val	Gly	Ala	Ile	Gln	Glu	Ile	Pro	Lys	Ala	Lys	35	40	45
Glu	Phe	Met	Ala	Asn	Phe	His	Lys	Thr	Leu	Ile	Leu	Gly	Lys	Gly	50	55	60
Lys	Thr	Leu	Thr	Asn	Glu	Ala	Ser	Thr	Lys	Lys	Val	Glu	Leu	Asp	65	70	75
Asn	Cys	Pro	Ser	Val	Ser	Pro	Tyr	Leu	Arg	Gly	Gln	Ser	Lys	Leu	80	85	90
Ile	Phe	Lys	Pro	Asp	Leu	Thr	Leu	Glu	Glu	Val	Gln	Ala	Glu	Asn	95	100	105
Pro	Lys	Val	Ser	Arg	Gly	Arg	Tyr	Arg	Pro	Gln	Glu	Cys	Lys	Ala	110	115	120
Leu	Gln	Arg	Val	Ala	Ile	Leu	Val	Pro	His	Arg	Asn	Arg	Glu	Lys	125	130	135
His	Leu	Met	Tyr	Leu	Leu	Glu	His	Leu	His	Pro	Phe	Leu	Gln	Arg	140	145	150
Gln	Gln	Leu	Asp	Tyr	Gly	Ile	Tyr	Val	Ile	His	Gln	Ala	Glu	Gly	155	160	165
Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	260	265	270
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	275	280	285
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	290	295	300
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	305	310	315
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	320	325	330

Pro Leu Tyr Ile Asn Ile Thr Val Asp Phe Trp Phe Gly Ala
335 340

<210> 237
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 237
ccttaacctca gaggccagag caagc 25

<210> 238
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 238
gagcttcac cgtctctgct tcacc 25

<210> 239
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 239
caggaatgta aagctttaca gagggtcgcc atctctgctc cccacc 46

<210> 240
<211> 2567
<212> DNA
<213> Homo sapiens

<400> 240
cgtgggcccgg ggtcgcgag cgaggctgtgg gcgcgcccgg aggagcgacc 50
gcgcgagttc tcgagctcca gctgcattcc ctccgctgcc gccccacgct 100
tetcccgctc cgggcccgc aatggcccag gcagtggtgt cgcgcctcgg 150
ccgcattctc tggcttgctt gcctcctgcc ctgggcccgg gcagggtgtg 200
ccgcaggcct gtatgaactc aatctacca ccgatagccc tgccaccacg 250
ggagcggtgg tgaccatctc ggccagcctg gtggccaagg acaacggcac 300
cctggccctg cccgtgacg cccacctcta ccgcttcac ttgatccaca 350
ccccgctggt gcttaactgc aagatggaga aggtctcag ctccaccatc 400
cgtgtgtgtg gcacgtgcc cggggaatto ccggtctctg tctgtgtcac 450
tgccgctgac tgetggatgt gccagcctgt ggccaggggc ttgtgtgtcc 500
tccccatcac agagtctctc gtgggggacc ttgtgtcac ccagaacct 550

tccctaccct ggcccagctc ctatctcact aagaccgtcc tgaaggtctc 600
 ctctctctc cagcaccga gcaacttctc caagaccgcc ttgtttctct 650
 acagctggga ctctggggac gggaccaga tgggtgactga agactccgtg 700
 gtctattata actattccat catcggggacc ttcaccgtga agctcaaatg 750
 ggtggcggag tgggaagagg tggagccgga tgccacgagg cctgtgaagc 800
 agaagaccgg ggacttctcc gcctcgtga agctgcagga aaccttctga 850
 ggcatccaag tgttggggcc caccctaatt cagaccttcc aaaagatgac 900
 cgtgaccttg aacttctctg ggagccctcc tctgactgtg tgctggcgct 950
 tcaagcctga gtgcctcccg ctggagggaag gggagtgcga ccctgtgtcc 1000
 gtggccagca cagcgtacaa cctgaccac accctcaggg accctgggga 1050
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 accacaagat ccaggtgtgg cctccagaa tccagccggc tgtctttgct 1150
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 caccctctgg ggtcagggtc tctgccaga tctgtgtgtg gcctttcttg 1300
 ctggagactc catctgagta cctggaaatt gttcgtgaga accacgggct 1350
 gctcccgccc ctctataagt ctgtcaaac ttacaccgtg tgagcactcc 1400
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 ttggcctgga tcatccatcc atctgtacag ttcagccact gccacaagcc 1550
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 cagccactga cataagcccc actcggttac caccctcttg accccctacc 1650
 tttgaagagg ctctgtgcag gactttgatg cttggggtgt tccgtgttga 1700
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 gtgccagaga gctagaaaga aggtcataaa gggttaaaaa tccataacta 1850
 aaggttgtac acatagatgg gcacactcac agagagaagt gtgcatgtac 1900
 acacaccaca cacacacaca cacacacaca cacagaaata taaacacatg 1950
 cgtcacatgg gcatttcaga tgatcagctc tgtatctggt taagtccggt 2000
 gctgggatgc accctgcact agagctgaaa ggaaatttga cctccaagca 2050
 gccctgacag gttctgggccc cgggcccctc ctttgtgctt tgtctctgca 2100
 gttcttgccc cttttataag gccatcctag tccctgctgg ctggcagggg 2150

cctggatggg gggcaggact aatactgagt gattgcagag tgctttataa 2200
 atatcacctt attttatcga aaccatctg tgaaactttc actgaggaaa 2250
 aggccttgca gcggtagaag aggttgagtc aaggccgggc gcggtggctc 2300
 acgcctgtaa tcccagcact ttgggaggcc gaggcgggtg gatcacgaga 2350
 tcaggagatc gagaccaccc tggctaacac ggtgaaaccc cgtctctact 2400
 aaaaaaatac aaaaagttag ccgggcgtgg tgggtgggtgc ctgtagtccc 2450
 agctactcgg gaggctgagg caggagaatg gtgcgaaccc gggaggcgga 2500
 gcttgcatg agccagatg gcgccactgc actccagcct gagtgcaga 2550
 gcgagactct gtctcca 2567

<210> 241
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 241
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 1 5 10 15
 Ala Cys Leu Leu Pro Trp Ala Pro Ala Gly Val Ala Ala Gly Leu
 20 25 30
 Tyr Glu Leu Asn Leu Thr Thr Asp Ser Pro Ala Thr Thr Gly Ala
 35 40 45
 Val Val Thr Ile Ser Ala Ser Leu Val Ala Lys Asp Asn Gly Ser
 50 55 60
 Leu Ala Leu Pro Ala Asp Ala His Leu Tyr Arg Phe His Trp Ile
 65 70 75
 His Thr Pro Leu Val Leu Thr Gly Lys Met Glu Lys Gly Leu Ser
 80 85 90
 Ser Thr Ile Arg Val Val Gly His Val Pro Gly Glu Phe Pro Val
 95 100 105
 Ser Val Trp Val Thr Ala Ala Asp Cys Trp Met Cys Gln Pro Val
 110 115 120
 Ala Arg Gly Phe Val Val Leu Pro Ile Thr Glu Phe Leu Val Gly
 125 130 135
 Asp Leu Val Val Thr Gln Asn Thr Ser Leu Pro Trp Pro Ser Ser
 140 145 150
 Tyr Leu Thr Lys Thr Val Leu Lys Val Ser Phe Leu Leu His Asp
 155 160 165
 Pro Ser Asn Phe Leu Lys Thr Ala Leu Phe Leu Tyr Ser Trp Asp
 170 175 180
 Phe Gly Asp Gly Thr Gln Met Val Thr Glu Asp Ser Val Val Tyr
 185 190

Tyr Asn Tyr Ser Ile Ile Gly Thr Phe Thr Val Lys Leu Lys Val
 200 205 210
 Val Ala Glu Trp Glu Glu Val Glu Pro Asp Ala Thr Arg Ala Val
 215 220 225
 Lys Gln Lys Thr Gly Asp Phe Ser Ala Ser Leu Lys Leu Gln Glu
 230 235 240
 Thr Leu Arg Gly Ile Gln Val Leu Gly Pro Thr Leu Ile Gln Thr
 245 250 255
 Phe Gln Lys Met Thr Val Thr Leu Asn Phe Leu Gly Ser Pro Pro
 260 265 270
 Leu Thr Val Cys Trp Arg Leu Lys Pro Glu Cys Leu Pro Leu Glu
 275 280 285
 Glu Gly Glu Cys His Pro Val Ser Val Ala Ser Thr Ala Tyr Asn
 290 295 300
 Leu Thr His Thr Phe Arg Asp Pro Gly Asp Tyr Cys Phe Ser Ile
 305 310 315
 Arg Ala Glu Asn Ile Ile Ser Lys Thr His Gln Tyr His Lys Ile
 320 325 330
 Gln Val Trp Pro Ser Arg Ile Gln Pro Ala Val Phe Ala Phe Pro
 335 340 345
 Cys Ala Thr Leu Ile Thr Val Met Leu Ala Phe Ile Met Tyr Met
 350 355 360
 Thr Leu Arg Asn Ala Thr Gln Gln Lys Asp Met Val Glu Asn Pro
 365 370 375
 Glu Pro Pro Ser Gly Val Arg Cys Cys Cys Gln Met Cys Cys Gly
 380 385 390
 Pro Phe Leu Leu Glu Thr Pro Ser Glu Tyr Leu Glu Ile Val Arg
 395 400 405
 Glu Asn His Gly Leu Leu Pro Pro Leu Tyr Lys Ser Val Lys Thr
 410 415 420

Tyr Thr Val

<210> 242
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 242
 catttcctta ccctggaccc agctcc 26

 <210> 243
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 243
gaaaggccca cagcacatct ggcag 25

<210> 244
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 244
ccacgaccog agcaacttcc tcaagacoga cttgtttctc tacagc 46

<210> 245
<211> 485
<212> DNA
<213> Homo sapiens

<400> 245
gtcacaagacc cagcagtggtg acagccagac agacggcagc atggcactga 50
gtccccagat ctgggcccgt tgcctcctgc tctcctcctc cctcgccagc 100
ctgaccagtgt gctctgtttt cccacaacag acgggacaac ttgcagagct 150
gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200
agaaggcgaag gaggcgagac acccaacttcc ccatctgcat tttctgtctg 250
ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300
acctgccctg ccccgctccc ctcccttctc tattttattcc tgctgcccc 350
gaacataggt cttggaataa aatggctggt tcttttggtt tccaaaaaaa 400
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 246
<211> 84
<212> PRT
<213> Homo sapiens

<400> 246
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
1 5 10 15
Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln
20 25 30
Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
35 40 45
Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp
50 55 60
Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg
65 70 75

Ser Lys Cys Gly Met Cys Cys Lys Thr

80

<210> 247

<211> 2359

<212> DNA

<213> Homo sapiens

<400> 247

ctgtcaggaa ggacatctg aaggctgcaa tttgttctta gggaggcagg 50
tgctggcctg gcctggatct tccacatgt tcctgttgct gccttttgat 100
agcctgattg tcaacctctt gggcatctcc ctgactgtcc tcttcaacct 150
ccttctcggt ttcacatag tgccagccat ttttgagto tccttttgta 200
tcgcgaaact ctacatgaa agtctgttaa aaatctttgc gtgggctacc 250
ttgagaatgg agcaggagc caaggagaag aaccaccagc tttacaagcc 300
ctacaccaac ggaatcattg caaaggatcc cacttcaact gaagaagaga 350
tcaaagagat tcgtcgaagt ggtagtagta aggctctgga caacactcca 400
gagttcgagc tctctgacat tttctacttt tgccggaaaag gaatggagac 450
cattatggat gatgaggga caaagagatt ctgagcagaa gaactggagt 500
cctggaaact gctgagcaga accaattata acttccagta catcagcctt 550
cggctcacgg tcctgtgggg gttaggagtg ctgattcggt actgctttct 600
gctgccgctc aggatagcac tggctttcac agggattagc cttctggttg 650
tgggcacaac tgtgtgggga tacttgccaa atgggaggtt taaggaattc 700
atgagtaaac atgttcactt aatgtgttac cggaatctgc tgccagcgct 750
gacagccatc atcacctacc atgacaggga aaacagacca agaaatggtg 800
gcatctgtgt ggccaatcat acctcaccca tcgatgtgat catcttgccc 850
agcgatggct attatgccat ggtgggtcaa gtgcacgggg gactcatggg 900
tgtgattcag agagccatg tgaaggcctg cccacacgto tggtttgagc 950
gctcggaagt gaaggatgc cacctggttg ctaagagact gactgaacat 1000
gtgcaagata aaagcaagct gcctatcctc atcttccag aaggaaacctg 1050
catcaataat acatcggtga tgatgttcaa aaaggggaagt tttgaaattg 1100
gagccacagt ttacctgtt gctatcaagt atgacctca atttggcgat 1150
gccttctgga acagcagcaa atacgggatg gtgacgtacc tgctcgcaat 1200
gatgaccagc tgggocattg tctgcagcgt gtggtacctg cctcccatga 1250
ctagagaggc agatgaagat gctgtccagt ttgcgaatag ggtgaaatct 1300
gccattgcca ggcagggagg acttgtggac ctgctgtggg atgggggcct 1350

gaagagggag aaggtgaagg acacgttcaa ggaggagcag cagaagctgt 1400
 acagcaagat gatcgtgggg aaccacaagg acaggagccg ctctgagcc 1450
 tgcctccagc tggctggggc caccgtgcgg ggtgccaaac ggctcagagc 1500
 tggagtgtgc gccgccgcc ccaactgctgt gtcttttcca gaectcaggg 1550
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 cgggatccct gtgcaccccg cgagccctac ccttggtggt ctaaacggat 1650
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 agtcgttgga ggaatgcat taaagtgaac tccccacct tgcacgctgt 1750
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 cggtaacaaga gtctgttatg caagcccggtg tgcagggat gtgtggggg 1850
 cgccaccgc ctctccagga aaggcacagc tgaggcactg tggctggctt 1900
 cgccctcaac atgcgccca gccttgagc tctcagaca tgataggaag 1950
 gaaactgtca tctgcagggg ctttcagcaa aatgaagggt tagattttta 2000
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 aactcccat gtgatgcgcg cttgttgaa tgtgtgtctc gggttcccca 2150
 tctgtaatat gagtcggggg gaatggtggt gattcctacc tcacagggt 2200
 gttgtgggga ttaaagtgtc gcgggtgagt gaaggacaca tcacgttcag 2250
 tgtttcaagt acaggcccac aaaacggggc acggcaggcc tgagctcaga 2300
 gctgtgcac tgggttttg atttgttctt gtgagtaaat aaaactggct 2350
 ggtgaatga 2359

<210> 248
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 248
 Met Phe Leu Leu Leu Pro Phe Asp Ser Leu Ile Val Asn Leu Leu
 1 5 10 15
 Gly Ile Ser Leu Thr Val Leu Phe Thr Leu Leu Leu Val Phe Ile
 20 25 30
 Ile Val Pro Ala Ile Phe Gly Val Ser Phe Gly Ile Arg Lys Leu
 35 40 45
 Tyr Met Lys Ser Leu Leu Lys Ile Phe Ala Trp Ala Thr Leu Arg
 50 55 60
 Met Glu Arg Gly Ala Lys Glu Lys Asn His Gln Leu Tyr Lys Pro
 65 70 75

Met Thr Arg Glu	Ala Asp Glu Asp Ala	Val Gln Phe Ala Asn Arg
395		400 405
Val Lys Ser Ala	Ile Ala Arg Gln Gly	Gly Leu Val Asp Leu Leu
410		415 420
Trp Asp Gly Gly	Leu Lys Arg Glu Lys	Val Lys Asp Thr Phe Lys
425		430 435
Glu Glu Gln Gln	Lys Leu Tyr Ser Lys	Met Ile Val Gly Asn His
440		445 450
Lys Asp Arg Ser	Arg Ser	
455		

<210> 249
 <211> 1103
 <212> DNA
 <213> Homo sapiens

<400> 249
 gccctcgaa accaggactc cagcacctct ggtcccgccc tcacccggac 50
 ccctggccct cactgtctct ccagggatgg cgtctggcggc ttgatgatc 100
 gcctcggca gcctcggcct ccacacctgg caggcccagg ctgttccac 150
 catcctgccc ctgggctctg ctccagacac ctttgacgat acctatgtg 200
 gttgtgcaga ggagatggag gagaaggcag cccccctgct aaaggaggaa 250
 atggcccacc atgccctgct gcgggaatcc tgggaggcag ccaggagac 300
 ctgggaggac aagcgtcag ggcttacctt gccccctggc ttcaaagccc 350
 agaatggaat agccattatg gtctacacca actcatcgaa cacottgtac 400
 tgggagttga atcaggccgt gcggacgggc ggaggtccc gggagctcta 450
 catgaggcac ttcccttca aggcctgca tttctacctg atccggggcc 500
 tgcagctgct gcgaggcagt gggggctgca gcaggggacc tggggagggt 550
 gtgttcagag gtgtgggcag ccttcgcttt gaaccaaga ggctggggga 600
 ctctgtccgc ttgggccagt ttgcctccag ctccctggat aaggcagtg 650
 ccacagatt tggggagaag aggcggggct gtgtgtctgc gccagggtg 700
 cagctagggt cacaatctga gggggcctcc tctctgcccc cctggaagac 750
 tctgtctttg gccctggag agttccagct ctacggggtt gggccctgaa 800
 agtccaacat ctgccactta ggagccctgg gaacgggtga cttcatatg 850
 acgaagaggc acctccagca gccttgagaa gcaagaacat ggttccggac 900
 ccagccctag cagcctctc cccaaccagg atgttgccct ggggaggcca 950
 cagcagggct gagggaactc tgctatgtga tggggacttc ctggacaag 1000
 caaggaaagt actgaggcag ccacttgatt gaacggtgtt gcaatgtgga 1050

gacatggagt tttattgagg tagctacgtg attaaatggt attgcagtgt 1100

gga 1103

<210> 250

<211> 240

<212> PRT

<213> Homo sapiens

<400> 250

Met Ala Leu Ala Ala Leu Met Ile Ala Leu Gly Ser Leu Gly Leu
1 5 10 15

His Thr Trp Gln Ala Gln Ala Val Pro Thr Ile Leu Pro Leu Gly
20 25 30

Leu Ala Pro Asp Thr Phe Asp Asp Thr Tyr Val Gly Cys Ala Glu
35 40 45

Glu Met Glu Glu Lys Ala Ala Pro Leu Leu Lys Glu Glu Met Ala
50 55 60

His His Ala Leu Leu Arg Glu Ser Trp Glu Ala Ala Gln Glu Thr
65 70 75

Trp Glu Asp Lys Arg Arg Gly Leu Thr Leu Pro Pro Gly Phe Lys
80 85 90

Ala Gln Asn Gly Ile Ala Ile Met Val Tyr Thr Asn Ser Ser Asn
95 100 105

Thr Leu Tyr Trp Glu Leu Asn Gln Ala Val Arg Thr Gly Gly Gly
110 115 120

Ser Arg Glu Leu Tyr Met Arg His Phe Pro Phe Lys Ala Leu His
125 130 135

Phe Tyr Leu Ile Arg Ala Leu Gln Leu Leu Arg Gly Ser Gly Gly
140 145 150

Cys Ser Arg Gly Pro Gly Glu Val Val Phe Arg Gly Val Gly Ser
155 160 165

Leu Arg Phe Glu Pro Lys Arg Leu Gly Asp Ser Val Arg Leu Gly
170 175 180

Gln Phe Ala Ser Ser Ser Leu Asp Lys Ala Val Ala His Arg Phe
185 190 195

Gly Glu Lys Arg Arg Gly Cys Val Ser Ala Pro Gly Val Gln Leu
200 205 210

Gly Ser Gln Ser Glu Gly Ala Ser Ser Leu Pro Pro Trp Lys Thr
215 220 225

Leu Leu Leu Ala Pro Gly Glu Phe Gln Leu Ser Gly Val Gly Pro
230 235 240

<210> 251

<211> 50

<212> DNA

<213> Artificial Sequence

0908062-111001

<220>

<223> Synthetic oligonucleotide probe

<400> 251

ccaccacctg gaggtcctgc agttgggcag gaactccatc cggcagattg 50

<210> 252

<211> 1076

<212> DNA

<213> Homo sapiens

<400> 252

gtggcttcat ttcagtggct gacttcagac gagcaatatg gctgggtccc 50

caacatgcct caccctcatc tatatccttt ggcagctcac aggggtcagca 100

gcctctggac ccgtgaaaga gctggtcggt tccgttgggt gggccgtgac 150

tttccccctg aagtcctaaag taaagcaagt tgactctatt gctgtgacct 200

tcaacacaa cctcttctg accatcacgc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatat ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctcagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccacca ggagtaactg 400

ctgcatgtct acgagcacct gtcaaaacct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattggaac 500

atggggaaga ggatgtgatt tatacctgga aggcctctgg gcaagcagcc 550

aatgagtcac ataattgggtc catcctcccc atctcctgga gatggggaga 600

aagtgatatg accttcacat gcgttgccag gaacctctgc agcagaaact 650

tctcaagccc catccttgcc aggaagctct gtgaagggtc tgctgatgac 700

ccagattcct ccattggtcct cctgtgtctc ctgttggtgc cctcctctgt 750

cagtctcttt gtactggggc tatttctttt gtttctgaag agagagagac 800

aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850

cctaacatat gcccccattc tggagagaac acagagtacg acacaatccc 900

tcacactaat agaacaatcc taaaggaaga tccagcaaat acggtttact 950

ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000

atgcagaca caccaaggct atttgcctat gagaatgtta tctagacagc 1050

agtgcactcc cctaagtctc tgctca 1076

<210> 253

<211> 335

<212> PRT

<213> Homo sapiens

<400> 253

Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp

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Gly	Ser	Val	Gly	Gly 35	Ala	Val	Thr	Phe	Pro 40	Leu	Lys	Ser	Lys	Val 45	
Lys	Gln	Val	Asp	Ser 50	Ile	Val	Trp	Thr	Phe 55	Asn	Thr	Thr	Pro	Leu 60	
Val	Thr	Ile	Gln	Pro 65	Glu	Gly	Gly	Thr	Ile 70	Ile	Val	Thr	Gln	Asn 75	
Arg	Asn	Arg	Glu	Arg 80	Val	Asp	Phe	Pro	Asp 85	Gly	Gly	Tyr	Ser	Leu 90	
Lys	Leu	Ser	Lys	Leu 95	Lys	Lys	Asn	Asp	Ser 100	Gly	Ile	Tyr	Tyr	Val 105	
Gly	Ile	Tyr	Ser	Ser 110	Ser	Leu	Gln	Gln	Pro 115	Ser	Thr	Gln	Glu	Tyr 120	
Val	Leu	His	Val	Tyr 125	Glu	His	Leu	Ser	Lys 130	Pro	Lys	Val	Thr	Met 135	
Gly	Leu	Gln	Ser	Asn 140	Lys	Asn	Gly	Thr	Cys 145	Val	Thr	Asn	Leu	Thr 150	
Cys	Cys	Met	Glu	His 155	Gly	Glu	Glu	Asp	Val 160	Ile	Tyr	Thr	Trp	Lys 165	
Ala	Leu	Gly	Gln	Ala 170	Ala	Asn	Glu	Ser	His 175	Asn	Gly	Ser	Ile	Leu 180	
Pro	Ile	Ser	Trp	Arg 185	Trp	Gly	Glu	Ser	Asp 190	Met	Thr	Phe	Ile	Cys 195	
Val	Ala	Arg	Asn	Pro 200	Val	Ser	Arg	Asn	Phe 205	Ser	Ser	Pro	Ile	Leu 210	
Ala	Arg	Lys	Leu	Cys 215	Glu	Gly	Ala	Ala	Asp 220	Asp	Pro	Asp	Ser	Ser 225	
Met	Val	Leu	Leu	Cys 230	Leu	Leu	Leu	Val	Pro 235	Leu	Leu	Leu	Ser	Leu 240	
Phe	Val	Leu	Gly	Leu 245	Phe	Leu	Trp	Phe	Leu 250	Lys	Arg	Glu	Arg	Gln 255	
Glu	Glu	Tyr	Ile	Glu 260	Glu	Lys	Lys	Arg	Val 265	Asp	Ile	Cys	Arg	Glu 270	
Thr	Pro	Asn	Ile	Cys 275	Pro	His	Ser	Gly	Glu 280	Asn	Thr	Glu	Tyr	Asp 285	
Thr	Ile	Pro	His	Thr 290	Asn	Arg	Thr	Ile	Leu 295	Lys	Glu	Asp	Pro	Ala 300	
Asn	Thr	Val	Tyr	Ser 305	Thr	Val	Glu	Ile	Pro 310	Lys	Lys	Met	Glu	Asn 315	
Pro	His	Ser	Leu	Leu	Thr	Met	Pro	Asp	Thr	Pro	Arg	Leu	Phe	Ala	

Tyr Glu Asn Val Ile
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<210> 254
<211> 1053
<212> DNA
<213> Homo sapiens

<400> 254
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tctggacctt caacacaacc cctcttgta ccatcacgac agaagggggc 200
actatcatag tgaccacaaa tcgtaatatg gagagagtag acttcccaga 250
tggagggtac tccctgaagc tcagcaaac gaagaagaat gactcaggga 300
tctactatgt ggggatatac agctcatcac tccagcagcc ctccaccag 350
gagtagctgc tgcattgtct cagcacctg tcaaacctta aagtcaccat 400
gggtctgcag agcaataaga atggcacctg tgtgaccaat ctgacatgct 450
gcatggaaca tggggaagag gatgtgattt atacctgga ggccctgggg 500
caagcagcca atgagtccta taatgggtcc atcctcccca tctcctggag 550
atggggagaa agtgatatga ccttcatctg cgttgccagg aacctgtca 600
gcagaaactt ctcaagcccc atccttgcca ggaagctctg tgaagggtgt 650
gctgatgacc cagattcctc catggtctct ctgtgtctcc tgttgggtgc 700
cctcctgctc agtctctttg tactggggct atttcttttg tttctgaaga 750
gagagagaca agaagagtag attgaagaga agaagagagt ggacatttgt 800
cgggaaactc ctaacatatg ccccatctct ggagagaaca cagagtacga 850
cacatacctt cacactaata gaacaatcct aaaggaagat ccagcaataa 900
cggtttactc cactgtggaa ataccgaaaa agatggaaaa tccccactca 950
ctgctcagca tggcagacac accaaggcta tttgcctatg agaattgtat 1000
ctagacagca gtgcactccc ctaagtctct gctcaaaaaa aaaaaaaaaa 1050
aaa 1053

<210> 255
<211> 860
<212> DNA
<213> Homo sapiens

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 aagaagctag ttctacggga aggaacttta atgtagaaaa gattaatggg 150
 gaatggcata ctattatcct ggcctctgac aaaagagaaa agatagaaga 200
 acatggcaac tttagacttt ttctggagca aatccatgtc ttggagaatt 250
 ccttagttct taaagtccat actgtaagag atgaagagtg ctccgaatta 300
 tctatggttg ctgacaaaac agaaaaggct ggtgaatatt ctgtgacgta 350
 tgatggattc aatacattta ctatacctaa gacagactat gataactttc 400
 ttatggctca cctcattaac gaaaaggatg gggaacccct ccagctgatg 450
 gggctctatg gccgagaacc agatttgagt tcagacatca aggaaagggt 500
 tgcaacaata tgtgaggagc atggaatcct tagaaaaat atcattgacc 550
 tatcaatgc caatcgctgc ctccaggccc gagaatgaag aatggcctga 600
 gctccagtg ttgagtggac acttctcacc aggactccac catcatccct 650
 tcctatccat acagcatccc cagtataaat tctgtgatct gcattccatc 700
 ctgtctcact gagaagtcca attccagtct atcaacatgt tacctaggat 750
 acctcatcaa gaatcaaaga ctctctttaa tttctctttg atacaccctt 800
 gacaattttt catgaaatta ttctctctcc tgttcaataa atgattaccc 850
 ttgcacttaa 860

<210> 256

<211> 180

<212> PRT

<213> Homo sapiens

<400> 256

Met	Lys	Met	Leu	Leu	Leu	Cys	Leu	Gly	Leu	Thr	Leu	Val	Cys	
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Val	His	Ala	Glu	Glu	Ala	Ser	Ser	Thr	Gly	Arg	Asn	Phe	Asn	Val
			20						25				30	
Glu	Lys	Ile	Asn	Gly	Glu	Trp	His	Thr	Ile	Ile	Leu	Ala	Ser	Asp
			35						40				45	
Lys	Arg	Glu	Lys	Ile	Glu	Glu	His	Gly	Asn	Phe	Arg	Leu	Phe	Leu
			50						55				60	
Glu	Gln	Ile	His	Val	Leu	Glu	Asn	Ser	Leu	Val	Leu	Lys	Val	His
			65						70				75	
Thr	Val	Arg	Asp	Glu	Glu	Cys	Ser	Glu	Leu	Ser	Met	Val	Ala	Asp
			80						85				90	
Lys	Thr	Glu	Lys	Ala	Gly	Glu	Tyr	Ser	Val	Thr	Tyr	Asp	Gly	Phe
			95						100				105	
Asn	Thr	Phe	Thr	Ile	Pro	Lys	Thr	Asp	Tyr	Asp	Asn	Phe	Leu	Met
			110						115				120	

Ala	His	Leu	Ile	Asn	Glu	Lys	Asp	Gly	Glu	Thr	Phe	Gln	Leu	Met
				125					130					135
Gly	Leu	Tyr	Gly	Arg	Glu	Pro	Asp	Leu	Ser	Ser	Asp	Ile	Lys	Glu
				140					145					150
Arg	Phe	Ala	Gln	Leu	Cys	Glu	Glu	His	Gly	Ile	Leu	Arg	Glu	Asn
				155					160					165
Ile	Ile	Asp	Leu	Ser	Asn	Ala	Asn	Arg	Cys	Leu	Gln	Ala	Arg	Glu
				170					175					180

<210> 257
 <211> 766
 <212> DNA
 <213> Homo sapiens

<400> 257
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 ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150
 tetcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200
 agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250
 aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300
 agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350
 ggctctctta aaaggtcctc tcatgtgtaa ttctccaagc aacagtaatg 400
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450
 ttcaacttgc agtggttttt caatgactct tgtgcacctc ctactgtgtt 500
 caataaacc accagtaacg acaccatggc gagtggctgg agagcatcta 550
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccactttctca 600
 gtatttttag gtctattgct tgttggaatt ctggagggtc tgtttgggct 650
 cagtcagata gtcacggtt tccttggtg tctgtgtgga gtctctaagc 700
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750
 gtttgaaaaa aaaaaa 766

<210> 258
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 258
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 20 25 30
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile

	35		40		45
Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu	50		55		60
Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg	65		70		75
Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe	80		85		90
Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser	95		100		105
Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser	110		115		120
Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp	125		130		135
Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser	140		145		150
Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr	155		160		165
Met Ala Ser Gly Trp Arg Ala Ser Ser Phe His Phe Asp Ser Glu	170		175		180
Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu	185		190		195
Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile	200		205		210
Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg	215		220		225
Ser Gln Ile Val					

<210> 259
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 259
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 caccatgagg ctgtcagtgt gtctcctgat ggtctcgtg gcccttttgc 100
 gctaccaggc ccatgctctt gtctgccag ctgttgcctc tgagatcaca 150
 gtctctttat tcttaagtga cgctgcgcta aacctccaag ttgccaaact 200
 taatccacct ccagaagctc ttgcagccaa gttggaagtg aagcactgca 250
 ccgatcagat atcttttaag aaacgactct cattgaaaaa gtccctggtg 300
 aaatagttaa aaaatgtggt gtgtgacatg taaaaatgct caacctgggt 350
 tccaaagtct ttcaacgaca cctgatctt cactaaaaat tgtaaaaggt 400

tcaacacggtt gctttaataa atcacttgcc ctgc 434

<210> 260

<211> 83

<212> PRT

<213> Homo sapiens

<400> 260

Met	Arg	Leu	Ser	Val	Cys	Leu	Leu	Met	Val	Ser	Leu	Ala	Leu	Cys
1				5					10					15
Cys	Tyr	Gln	Ala	His	Ala	Leu	Val	Cys	Pro	Ala	Val	Ala	Ser	Glu
				20					25					30
Ile	Thr	Val	Phe	Leu	Phe	Leu	Ser	Asp	Ala	Ala	Val	Asn	Leu	Gln
				35					40					45
Val	Ala	Lys	Leu	Asn	Pro	Pro	Pro	Glu	Ala	Leu	Ala	Ala	Lys	Leu
				50					55					60
Glu	Val	Lys	His	Cys	Thr	Asp	Gln	Ile	Ser	Phe	Lys	Lys	Arg	Leu
				65					70					75
Ser	Leu	Lys	Lys	Ser	Trp	Trp	Lys							
				80										

<210> 261

<211> 636

<212> DNA

<213> Homo sapiens

<400> 261

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cgccccagtg cctctccccc tgcagccctg cccctcgaac tgtgacatgg 200
agagagtgac cctggccctt ctctacttg caggcctgac tgccttgaa 250
gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300
aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350
ggatcgcggc agttctgagt ggcaaatgca aatacaagag cagccagaag 400
cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450
tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500
taacactggc cccagcacc tctctccctg ggaggcctta tcctcaagga 550
aggacttctc tcoaagggca ggctgttagg cccctttctg atcaggaggc 600
ttctttatga attaaactcg cccaccacc ccttca 636

<210> 262

<211> 89

<212> PRT

<213> Homo sapiens

<400> 262

Met	Glu	Arg	Val	Thr	Leu	Ala	Leu	Leu	Leu	Ala	Gly	Leu	Thr
1				5					10				15
Ala	Leu	Glu	Ala	Asn	Asp	Pro	Phe	Ala	Asn	Lys	Asp	Asp	Phe
			20						25				30
Tyr	Tyr	Asp	Trp	Lys	Asn	Leu	Gln	Leu	Ser	Gly	Leu	Ile	Cys
			35						40				45
Gly	Leu	Leu	Ala	Ile	Ala	Gly	Ile	Ala	Ala	Val	Leu	Ser	Gly
			50						55				60
Cys	Lys	Tyr	Lys	Ser	Ser	Gln	Lys	Gln	His	Ser	Pro	Val	Pro
			65						70				75
Lys	Ala	Ile	Pro	Leu	Ile	Thr	Pro	Gly	Ser	Ala	Thr	Thr	Cys
			80						85				

<210> 263

<211> 1676

<212> DNA

<213> Homo sapiens

<400> 263

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ggacctatgc cttctataac aactgccgccc ggctccagtg tttccacag 200
cccccaaaac ggaactgggt ttgggggtcac ctgggcctga tcaactctac 250
agaggagggc ttgaaggact cgaccagat gtggccacc tattccagg 300
gctttacggt atggctgggt cccatcatcc ccttcacgt tttatgccac 350
cctgacacca tccggtctat caccaatgcc tcagctgcc ttgcacccaa 400
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gccttcacatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550
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 gtcataaata aaacggtgct gtcaaa 1676

<210> 264
 <211> 524
 <212> PRT
 <213> Homo sapiens

<400> 264

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Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu
				20					25					30
Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
				35					40					45
Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
				50					55					60
Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
				65					70					75
Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
				80					85					90
Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
				95					100					105
Thr	Ile	Arg	Ser	Ile	Thr	Asn	Ala	Ser	Ala	Ala	Ile	Ala	Pro	Lys
				110					115					120
Asp	Asn	Leu	Phe	Ile	Arg	Phe	Leu	Lys	Pro	Trp	Leu	Gly	Glu	Gly
				125					130					135

Ile	Leu	Leu	Ser	Gly	Gly	Asp	Lys	Trp	Ser	Arg	His	Arg	Arg	Met	140	145	150
Leu	Thr	Pro	Ala	Phe	His	Phe	Asn	Ile	Leu	Lys	Ser	Tyr	Ile	Thr	155	160	165
Ile	Phe	Asn	Lys	Ser	Ala	Asn	Ile	Met	Leu	Asp	Lys	Trp	Gln	His	170	175	180
Leu	Ala	Ser	Glu	Gly	Ser	Ser	Arg	Leu	Asp	Met	Phe	Glu	His	Ile	185	190	195
Ser	Leu	Met	Thr	Leu	Asp	Ser	Leu	Gln	Lys	Cys	Ile	Phe	Ser	Phe	200	205	210
Asp	Ser	His	Cys	Gln	Glu	Arg	Pro	Ser	Glu	Tyr	Ile	Ala	Thr	Ile	215	220	225
Leu	Glu	Leu	Ser	Ala	Leu	Val	Glu	Lys	Arg	Ser	Gln	His	Ile	Leu	230	235	240
Gln	His	Met	Asp	Phe	Leu	Tyr	Tyr	Leu	Ser	His	Asp	Gly	Arg	Arg	245	250	255
Phe	His	Arg	Ala	Cys	Arg	Leu	Val	His	Asp	Phe	Thr	Asp	Ala	Val	260	265	270
Ile	Arg	Glu	Arg	Arg	Arg	Thr	Leu	Pro	Thr	Gln	Gly	Ile	Asp	Asp	275	280	285
Phe	Phe	Lys	Asp	Lys	Ala	Lys	Ser	Lys	Thr	Leu	Asp	Phe	Ile	Asp	290	295	300
Val	Leu	Leu	Leu	Ser	Lys	Asp	Glu	Asp	Gly	Lys	Ala	Leu	Ser	Asp	305	310	315
Glu	Asp	Ile	Arg	Ala	Glu	Ala	Asp	Thr	Phe	Met	Phe	Gly	Gly	His	320	325	330
Asp	Thr	Thr	Ala	Ser	Gly	Leu	Ser	Trp	Val	Leu	Tyr	Asn	Leu	Ala	335	340	345
Arg	His	Pro	Glu	Tyr	Gln	Glu	Arg	Cys	Arg	Gln	Glu	Val	Gln	Glu	350	355	360
Leu	Leu	Lys	Asp	Arg	Asp	Pro	Lys	Glu	Ile	Glu	Trp	Asp	Asp	Leu	365	370	375
Ala	Gln	Leu	Pro	Phe	Leu	Thr	Met	Cys	Val	Lys	Glu	Ser	Leu	Arg	380	385	390
Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	395	400	405
Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	410	415	420
Leu	Ile	Asp	Ile	Ile	Gly	Val	His	His	Asn	Pro	Thr	Val	Trp	Pro	425	430	435
Asp	Pro	Glu	Val	Tyr	Asp	Pro	Phe	Arg	Phe	Asp	Pro	Glu	Asn	Ser	440	445	450

Lys Gly Arg Ser Pro Leu Ala Phe Ile Pro Phe Ser Ala Gly Pro
 455 460
 Arg Asn Cys Ile Gly Gln Ala Phe Ala Met Ala Glu Met Lys Val
 470 475 480
 Val Leu Ala Leu Met Leu Leu His Phe Arg Phe Leu Pro Asp His
 485 490 495
 Thr Glu Pro Arg Arg Lys Leu Glu Leu Ile Met Arg Ala Glu Val
 500 505 510
 Gly Leu Trp Leu Arg Val Glu Pro Leu Asn Val Gly Leu Gln
 515 520

<210> 265
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 265
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 atgaagaagc gcgcttaact ccggaggagc tagaaagagc ttcccttcta 200
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 gccagaatct ggaaccata caagaaacgt gagactctg attgcttctg 400
 gaaatactgt gctgaagtg aaataagcat ctgttagtca gtcagaaac 450
 acccatctta gaatatgaaa aataacacaa tgcttgattt gaaaaacgtg 500
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 aatcctctat gttttgcaca aaaaaaaaaa aaaa 584

<210> 266
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 266
 Met Tyr Lys Leu Ala Ser Cys Cys Leu Leu Phe Thr Gly Phe Leu
 1 5 10 15
 Asn Pro Leu Leu Ser Leu Pro Leu Leu Asp Ser Arg Glu Ile Ser
 20 25 30
 Phe Gln Leu Ser Ala Pro His Glu Asp Ala Arg Leu Thr Pro Glu
 35 40 45
 Glu Leu Glu Arg Ala Ser Leu Leu Gln Ile Leu Pro Glu Met Leu
 50 55 60

Gly Ala Glu Arg Gly Asp Ile Leu Arg Lys Ala Asp Ser Ser Thr
65 70 75
Asn Ile Phe Asn Pro Arg Gly Asn Leu Arg Lys Phe Gln Asp Phe
80 85 90
Ser Gly Gln Asp Pro Asn Ile Leu Leu Ser His Leu Leu Ala Arg
95 100 105
Ile Trp Lys Pro Tyr Lys Lys Arg Glu Thr Pro Asp Cys Phe Trp
110 115 120
Lys Tyr Cys Val

<210> 267
<211> 654
<212> DNA
<213> Homo sapiens

<400> 267
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acctgtctgc aaccagctg agggccatgcc ctcccaggg accgtctgca 200
gcctctgtct cctcggcatg ctctggctgg acttgccat ggcaggctcc 250
agcttctga gccctgaaca ccagagagtc cagcagagaa aggagtcgaa 300
gaagccacca gccaaagctgc agccccgagc tctagcaggc tggctccgcc 350
cggaagatgg aggtcaagca gaaggggcag aggatgaact ggaagtcgg 400
ttcaacgccc cttttgatgt tggaatcaag ctgtcagggg ttcagtacca 450
gcagcacagc caggccctgg ggaagtttct tcaggacatc ctctgggaag 500
aggccaaaga ggccccagcc gacaagtgat cgccacaag ccttactcac 550
ctctctctaa gtttagaagc gctcatctgg cttttcgctt gcttctgcag 600
caactccac gactgttgta caagctcagg aggcgaataa atgttcaaac 650
tgta 654

<210> 268
<211> 117
<212> PRT
<213> Homo sapiens

<400> 268
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1 5 10 15
Leu Trp Leu Asp Leu Ala Met Ala Gly Ser Ser Phe Leu Ser Pro
20 25 30
Glu His Gln Arg Val Gln Gln Arg Lys Glu Ser Lys Lys Pro Pro
35 40 45

Ala Lys Leu Gln Pro Arg Ala Leu Ala Gly Trp Leu Arg Pro Glu
50 55 60
Asp Gly Gly Gln Ala Glu Gly Ala Glu Asp Glu Leu Glu Val Arg
65 70 75
Phe Asn Ala Pro Phe Asp Val Gly Ile Lys Leu Ser Gly Val Gln
80 85 90
Tyr Gln Gln His Ser Gln Ala Leu Gly Lys Phe Leu Gln Asp Ile
95 100 105
Leu Trp Glu Glu Ala Lys Glu Ala Pro Ala Asp Lys
110 115

<210> 269
<211> 1332
<212> DNA
<213> Homo sapiens

<400> 269
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cagaccctga tagtcgtgat catcgggatg ctctgtctcc tcttggaactt 200
tcttggtctg gtgcacctgg gccagctgct catcttccac atctacctga 250
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cagcctctcc cagaagttag atcatggaca aaaagggcaa atcacaggaa 450
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gcgagacct gcaggagtgg tgccaggtgc ttgaagtaac aagttaaaaa 550
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tgtgtgtctg ctgtgtctca cagtgggcac agcggtaggc ggtcagtcac 750
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tgggccagct gcaaagcgtc ttccattctc tgggcagtg tggccccag 900
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 accactgtcc ccacacaacc ctgggggatgt tttaaaacac acacctctaa 1200
 cgcatatctt acagtcaact ttgtcttgcc tgagggttga attttttta 1250
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1332

<210> 270
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 270
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 Gln Thr Leu Ile Val Val Ile Ile Gly Met Leu Val Leu Leu Leu
 20 25 30
 Asp Phe Leu Gly Leu Val His Leu Gly Gln Leu Leu Ile Phe His
 35 40 45
 Ile Tyr Leu Ser Met Ser Pro Thr Leu Ser Pro Arg Ser Pro Gln
 50 55 60
 Gly Trp Val Val Arg Ala Ala His Leu Thr Pro Leu Leu Glu Tyr
 65 70 75
 Val Pro Asn Pro Glu Pro Pro Thr Pro Gly Ala Arg Val Phe Val
 80 85 90
 Pro Arg Val Arg Met Cys Ser Gly Ser Ala Ser Pro Arg Ser Glu
 95 100 105
 Ile Met Asp Lys Lys Gly Lys Ser Gln Glu Glu Ile Lys Ser Met
 110 115 120
 Arg Thr Gln Gln Ala Gln Gln Glu Ala Glu Leu Thr Pro Arg Pro
 125 130 135
 Ala Gly Val Val Pro Gly Ala
 140

<210> 271
 <211> 1484
 <212> DNA
 <213> Homo sapiens

<400> 271
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 cctatctgcc atcctcagca tgctatcact cagcttctcc acaacatccc 150
 tgctcagcaa ctactggttt gtgggcacac agaaggtgcc caagccctg 200
 tgcgagaaag gtctggcagc caagtgtctt gacatgccag tgtccctgga 250

tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga 300
 ctggggatga cgggttctcc ttccggagct tccggagtgg catgtggcta 350
 tcctgtgagg aaactgtgga agaaccaggg gagaggtgcc gaagtttcat 400
 tgaacttaca ccaccagcca agagaggtga gaaaggacta ctggaatttg 450
 ccacgttgca aggcccatgt caccctactc tccgatttgg aggggaagcgg 500
 ttgatggaga aggcttcctt cccctccctt ccttgggggc tttgtggcaa 550
 aaatcctatg gttatccctg ggaacgcaga tcacctacat cggacttcaa 600
 ttcatcagct tcttctgctt actaacagac ttgtacttca ctgggaaccc 650
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 cagggtctcct ggggatgggt gcccatatga tgtattcaca agtcttccaa 750
 gcgactgtca acttgggtcc agaagactgg agaccacatg tttggaatta 800
 tggctggggc ttctacatgg cctggctctc ctccacctgc tgcattggcg 850
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 tgcaagcata gtaagagctt caaggaaaac ccgaactgcc taccacatca 950
 ccatcagttg ttccctcggc ggctgtcaag tgcagcccc accgtggggtc 1000
 ctttgaccag ctaccaccag tatcataatc agcccatcca ctctgtctct 1050
 gagggagtgc acttctactc ctagctgcgg aacaagggat ttcaagagg 1100
 ggccagccag gagctgaaag aagcagttag gtcattctga gaggaagagc 1150
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 tctaaggga ttcttgggtg ccaactgctt ctttctctct acagctccat 1350
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 gtaaaatata cttcccgacc ttaaggatct gaaa 1484

<210> 272

<211> 285

<212> PRT

<213> Homo sapiens

<400> 272

Met	Ala	Lys	Met	Glu	Leu	Ser	Lys	Ala	Phe	Ser	Gly	Gln	Arg	Thr
1				5					10					15

Leu	Leu	Ser	Ala	Ile	Leu	Ser	Met	Leu	Ser	Leu	Ser	Phe	Ser	Thr
			20						25					30

Thr	Ser	Leu	Leu	Ser	Asn	Tyr	Trp	Phe	Val	Gly	Thr	Gln	Lys	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	35		40		45
Pro Lys Pro Leu Cys Glu Lys Gly Leu Ala Ala Lys Cys Phe Asp	50		55		60
Met Pro Val Ser Leu Asp Gly Asp Thr Asn Thr Ser Thr Gln Glu	65		70		75
Val Val Gln Tyr Asn Trp Glu Thr Gly Asp Asp Arg Phe Ser Phe	80		85		90
Arg Ser Phe Arg Ser Gly Met Trp Leu Ser Cys Glu Glu Thr Val	95		100		105
Glu Glu Pro Gly Glu Arg Cys Arg Ser Phe Ile Glu Leu Thr Pro	110		115		120
Pro Ala Lys Arg Gly Glu Lys Gly Leu Leu Glu Phe Ala Thr Leu	125		130		135
Gln Gly Pro Cys His Pro Thr Leu Arg Phe Gly Gly Lys Arg Leu	140		145		150
Met Glu Lys Ala Ser Leu Pro Ser Pro Pro Leu Gly Leu Cys Gly	155		160		165
Lys Asn Pro Met Val Ile Pro Gly Asn Ala Asp His Leu His Arg	170		175		180
Thr Ser Ile His Gln Leu Pro Pro Ala Thr Asn Arg Leu Ala Thr	185		190		195
His Trp Glu Pro Cys Leu Trp Ala Gln Thr Glu Arg Leu Cys Cys	200		205		210
Cys Phe Leu Cys Pro Val Arg Ser Pro Gly Asp Gly Gly Pro His	215		220		225
Asp Val Phe Thr Ser Leu Pro Ser Asp Cys Gln Leu Gly Ser Arg	230		235		240
Arg Leu Glu Thr Thr Cys Leu Glu Leu Trp Leu Gly Leu Leu His	245		250		255
Gly Leu Ala Leu Leu His Leu Leu His Gly Val Gly Cys His His	260		265		270
Leu Gln His Val His Gln Asp Gly Ala Gly Val Gln Val Gln Ala	275		280		285

<210> 273

<211> 1158

<212> DNA

<213> Homo sapiens

<400> 273

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ctcacttaag tctcaggcct gtcagcagct cctgtggaca ttgccatccc 150

ctctggttagc cttcagagca aacaggacaa cctatgttat ggatgtttcc 200

<210> 275
<211> 2694
<212> DNA
<213> Homo sapiens

<400> 275
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atgtgccctt ccaatataca acaataactg gccctctttt gttctatttt 200
tttaccctct ttcacctatt ccatactgca tagcaagaag attagtggat 250
gatacagatg ctatgagtaa cgcttgaag gaacttgcca tctttcttac 300
aacgggcatt gtcgtgtcag cttttggact ccctattgta tttgccagag 350
cacactctgat tgagtgggga gcttgtgcac ttgttctcac aggaaacaca 400
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atggacttcc tgtcatttgt tggccattca cgcacacagg agatggggca 550
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<210> 276

<211> 131

<212> PRT

<213> Homo sapiens

<400> 276

Met Ala Gly Ile Lys Ala Leu Ile Ser Leu Ser Phe Gly Gly Ala
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Ile Gly Leu Met Phe Leu Met Leu Gly Cys Ala Leu Pro Ile Tyr
 20 25 30

Asn Lys Tyr Trp Pro Leu Phe Val Leu Phe Phe Tyr Ile Leu Ser

	35		40		45
Pro Ile Pro Tyr Cys Ile Ala Arg Arg Leu Val Asp Asp Thr Asp	50		55		60
Ala Met Ser Asn Ala Cys Lys Glu Leu Ala Ile Phe Leu Thr Thr	65		70		75
Gly Ile Val Val Ser Ala Phe Gly Leu Pro Ile Val Phe Ala Arg	80		85		90
Ala His Leu Ile Glu Trp Gly Ala Cys Ala Leu Val Leu Thr Gly	95		100		105
Asn Thr Val Ile Phe Ala Thr Ile Leu Gly Phe Phe Leu Val Phe	110		115		120
Gly Ser Asn Asp Asp Phe Ser Trp Gln Trp	125		130		

<210> 277
 <211> 4104
 <212> DNA
 <213> Homo sapiens

<400> 277
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 caaagcatga gtgagccgcg tctctgcagc tgcccggggc gcgaatggca 250
 ggctgtttcc gggagtaaa aggtggcgcc ggtcagtggt cgtttccaat 300
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 ttggagtttt ttccccccac aacgtcacag tccgaactgc agaggggaaag 400
 gaaggcgcca ggaaggcgaa gctcgggctc cggcacgtag ttgggaaact 450
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 ctgcccaaca ccaccttcog gccatgcccc aacctgcgca gcgtggacct 1150
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 cctgccacca gcagcccgcg aggaatgcg aggtgtgatt gtcccagtg 2300
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 cgggcaccag gctggggtct ccttgtctgt gctctgatat gctccttgac 2400
 tgaacttta aggggatctc tcccagagac ttgacatttt agctttattg 2450
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 aaccttcagg acagtctatc ttaaatctca tatgagaact ccttctctcc 2550

<210> 278
 <211> 522
 <212> PRT
 <213> Homo sapiens

<400> 278

Met	Asp	Phe	Leu	Leu	Leu	Gly	Leu	Cys	Leu	Tyr	Trp	Leu	Leu	Arg	1	5	10	15
Arg	Pro	Ser	Gly	Val	Val	Leu	Cys	Leu	Leu	Gly	Ala	Cys	Phe	Gln	20	25	30	35
Met	Leu	Pro	Ala	Ala	Pro	Ser	Gly	Cys	Pro	Gln	Leu	Cys	Arg	Cys	35	40	45	50
Glu	Gly	Arg	Leu	Leu	Tyr	Cys	Glu	Ala	Leu	Asn	Leu	Thr	Glu	Ala	50	55	60	65
Pro	His	Asn	Leu	Ser	Gly	Leu	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn	65	70	75	80
Ser	Leu	Ser	Glu	Leu	Arg	Ala	Gly	Gln	Phe	Thr	Gly	Leu	Met	Gln	80	85	90	95
Leu	Thr	Trp	Leu	Tyr	Leu	Asp	His	Asn	His	Ile	Cys	Ser	Val	Gln	95	100	105	110
Gly	Asp	Ala	Phe	Gln	Lys	Leu	Arg	Arg	Val	Lys	Glu	Leu	Thr	Leu	110	115	120	125
Ser	Ser	Asn	Gln	Ile	Thr	Gln	Leu	Pro	Asn	Thr	Thr	Phe	Arg	Pro	125	130	135	140
Met	Pro	Asn	Leu	Arg	Ser	Val	Asp	Leu	Ser	Tyr	Asn	Lys	Leu	Gln	140	145	150	155
Ala	Leu	Ala	Pro	Asp	Leu	Phe	His	Gly	Leu	Arg	Lys	Leu	Thr	Thr	155	160	165	170
Leu	His	Met	Arg	Ala	Asn	Ala	Ile	Gln	Phe	Val	Pro	Val	Arg	Ile	170	175	180	185
Phe	Gln	Asp	Cys	Arg	Ser	Leu	Lys	Phe	Leu	Asp	Ile	Gly	Tyr	Asn	185	190	195	200
Gln	Leu	Lys	Ser	Leu	Ala	Arg	Asn	Ser	Phe	Ala	Gly	Leu	Phe	Lys	200	205	210	215
Leu	Thr	Glu	Leu	His	Leu	Glu	His	Asn	Asp	Leu	Val	Lys	Val	Asn	215	220	225	230
Phe	Ala	His	Phe	Pro	Arg	Leu	Ile	Ser	Leu	His	Ser	Leu	Cys	Leu	230	235	240	245
Arg	Arg	Asn	Lys	Val	Ala	Ile	Val	Val	Ser	Ser	Leu	Asp	Trp	Val	245	250	255	260
Trp	Asn	Leu	Glu	Lys	Met	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Tyr	260	265	270	275
Met	Glu	Pro	His	Val	Phe	Glu	Thr	Val	Pro	His	Leu	Gln	Ser	Leu	275	280	285	

Gln	Leu	Asp	Ser	Asn	Arg	Leu	Thr	Tyr	Ile	Glu	Pro	Arg	Ile	Leu	290	295	300
Asn	Ser	Trp	Lys	Ser	Leu	Thr	Ser	Ile	Thr	Leu	Ala	Gly	Asn	Leu	305	310	315
Trp	Asp	Cys	Gly	Arg	Asn	Val	Cys	Ala	Leu	Ala	Ser	Trp	Leu	Ser	320	325	330
Asn	Phe	Gln	Gly	Arg	Tyr	Asp	Gly	Asn	Leu	Gln	Cys	Ala	Ser	Pro	335	340	345
Glu	Tyr	Ala	Gln	Gly	Glu	Asp	Val	Leu	Asp	Ala	Val	Tyr	Ala	Phe	350	355	360
His	Leu	Cys	Glu	Asp	Gly	Ala	Glu	Pro	Thr	Ser	Gly	His	Leu	Leu	365	370	375
Ser	Ala	Val	Thr	Asn	Arg	Ser	Asp	Leu	Gly	Pro	Pro	Ala	Ser	Ser	380	385	390
Ala	Thr	Thr	Leu	Ala	Asp	Gly	Gly	Glu	Gly	Gln	His	Asp	Gly	Thr	395	400	405
Phe	Glu	Pro	Ala	Thr	Val	Ala	Leu	Pro	Gly	Gly	Glu	His	Ala	Glu	410	415	420
Asn	Ala	Val	Gln	Ile	His	Lys	Val	Val	Thr	Gly	Thr	Met	Ala	Leu	425	430	435
Ile	Phe	Ser	Phe	Leu	Ile	Val	Val	Leu	Val	Leu	Tyr	Val	Ser	Trp	440	445	450
Lys	Cys	Phe	Pro	Ala	Ser	Leu	Arg	Gln	Leu	Arg	Gln	Cys	Phe	Val	455	460	465
Thr	Gln	Arg	Arg	Lys	Gln	Lys	Gln	Lys	Gln	Thr	Met	His	Gln	Met	470	475	480
Ala	Ala	Met	Ser	Ala	Gln	Glu	Tyr	Tyr	Val	Asp	Tyr	Lys	Pro	Asn	485	490	495
His	Ile	Glu	Gly	Ala	Leu	Val	Ile	Ile	Asn	Glu	Tyr	Gly	Ser	Cys	500	505	510
Thr	Cys	His	Gln	Gln	Pro	Ala	Arg	Glu	Cys	Glu	Val				515	520	

<210> 279

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 279

tccgtgcagg gggacgcctt tcagaaactg cgccgagtta aggaac 46

<210> 280

<211> 709

<212> DNA

<213> Homo sapiens

<400> 280
 gtgcaaggag ccgaggcgag atgggcgtcc tgggccgggt cctgctgtgg 50
 ctgcagctct gcgcactgac ccaggcggtc tccaaactct gggccccaa 100
 caccgacttc gacgtcgag ccaactggag ccagaaccgg accccgtgcg 150
 ccggcgggcg cgttgagttc ccggcggaaca agatggtgtc agtcctgtgtg 200
 caagaaggtc acgccgtctc agacatgttc ctgccgttgg atggggaaact 250
 cgtctgggtc tcaggagcgg gattcgcggt ctcagacgtg ggctcgcaacc 300
 tggactgtgg cgcggggcgaa cctgccgtct tccgcgaact tgaccgcttc 350
 tcttgcatg acccgcacct gtggcgctct ggggacgagg cacctggcct 400
 ctcttctgtg gacgccgagc gcgtgccctg ccgccacgac gacgtcttct 450
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 gtgcgtgtcc gcagcatctc ggctctgggc cggacgttca cgcgcgacga 550
 ggacctgggt gttttcctgg cgtcccgcg cggccgccta cgcttcacag 600
 ggcggggcgc gctgagcgtg gggcccgagg actgcgcgga cccgtcggcg 650
 tgcgtctgcg gcaacgcgga ggccgcagccg tggatctgcg cggccctgct 700
 ccagcccct 709

<210> 281
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 281
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 1 5 10
 Leu Thr Gln Ala Val Ser Lys Leu Trp Val Pro Asn Thr Asp Phe 30
 20 25
 Asp Val Ala Ala Asn Trp Ser Gln Asn Arg Thr Pro Cys Ala Gly 45
 35 40
 Gly Ala Val Glu Phe Pro Ala Asp Lys Met Val Ser Val Leu Val 60
 50 55
 Gln Glu Gly His Ala Val Ser Asp Met Leu Leu Pro Leu Asp Gly 75
 65 70
 Glu Leu Val Leu Ala Ser Gly Ala Gly Phe Gly Val Ser Asp Val 90
 80 85
 Gly Ser His Leu Asp Cys Gly Ala Gly Glu Pro Ala Val Phe Arg 105
 95 100
 Asp Ser Asp Arg Phe Ser Trp His Asp Pro His Leu Trp Arg Ser 120
 110
 Gly Asp Glu Ala Pro Gly Leu Phe Phe Val Asp Ala Glu Arg Val 135
 125 130

Pro Cys Arg His Asp Asp Val Phe Phe Pro Pro Ser Ala Ser Phe
 140 145 150
 Arg Val Gly Leu Gly Pro Gly Ala Ser Pro Val Arg Val Arg Ser
 155 160 165
 Ile Ser Ala Leu Gly Arg Thr Phe Thr Arg Asp Glu Asp Leu Ala
 170 175 180
 Val Phe Leu Ala Ser Arg Ala Gly Arg Leu Arg Phe His Gly Pro
 185 190 195
 Gly Ala Leu Ser Val Gly Pro Glu Asp Cys Ala Asp Pro Ser Gly
 200 205 210
 Cys Val Cys Gly Asn Ala Glu Ala Gln Pro Trp Ile Cys Ala Ala
 215 220 225
 Leu Leu Gln Pro

<210> 282
 <211> 644
 <212> DNA
 <213> Homo sapiens

<400> 282
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 tgtgttttgc acttaccctg tgttctgcct ttgtgtggca taacaaggga 150
 ctgcaactta tttctgcag ttgacagtct ttggcattga cgtggtacag 200
 ctttctcttc ataccatttg caagggatgc tgtgaagaag tgttttgcog 250
 tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300
 tggacagaag ctggtggaca gttttgtaac tatcttcgaa acctctgtct 350
 tacagacatg tgccttttat ctgacagcaa tgtgttgctt gtgattcgaa 400
 catttgaggg ttacttttgg aagcaacaat acattctcga acctgaatgt 450
 cagtagcaca gtagtgaag tgggttctgt atcttgtgga gtggaatctt 500
 cctcatgtac ctgtttctc tctggatgtt gtccactga attcccatga 550
 atacaaacct attcagcaac agcaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 283
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 283
 Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg
 1 5 10 15
 Leu Ile Ala Thr Ile Met Val Leu Leu Cys Phe Ala Leu Thr Leu

	20		25		30
Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe					
	35		40		45
Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe					
	50		55		60
Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys					
	65		70		75

Leu Ala

<210> 284
 <211> 2623
 <212> DNA
 <213> Homo sapiens

<400> 284
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 ctcccggttc tccaaactaa tacggactga acggatcgct gcgagggtgg 150
 gagagaaaat tagggggaga aaggacagag agagcaacta ccattccatag 200
 ccagatagat tatcttacac tgaactgac aagtaacttg aaaatgactt 250
 cgaaatttat ctgtgtgtcc ttcatacttg ctgcaactgag tctttcaacc 300
 accttttctc tccaactaga ccagcaaaag gttctactag tttcttttga 350
 tggattccgt tgggattact tatataaagt tccaacgccc cattttcatt 400
 atattatgaa atatggtgtt cacgtgaagc aagttactaa tgtttttatt 450
 acaaaaacct accctaacca ttatactttg gtaactggcc tctttgcaga 500
 gaatcatggg attgttgcaa atgatattgt tgatcctatt cggacaacaa 550
 ctttctcctt ggatcacatg aatatttatg attccaagtt ttgggaagaa 600
 gcgacaccaa tatggatcac aaaccagagg gcaggacata ctagtgtgct 650
 agccatgtgg ccggaacag atgtaaaaat acataagcgc tttcctactc 700
 attacatgcc ttacaatgag tcagtttcat ttgaagatag agttgccaac 750
 attgttgaat ggtttacgtc aaaagagccc ataaatcttg gtcttctcta 800
 ttgggaagac cctgatgaca tgggccacca tttgggacct gacagtcgcc 850
 toatggggcc tgtcatttca gatattgaca agaagttagg atatctcata 900
 caaatgctga aaaaggcaaa gttgtggaac actctgaacc taatcatcac 950
 aagtgtatcat ggaatgacgc agtgctctga ggaaaggtta atagaacttg 1000
 accagtaoct ggataaagac cactataccc tgattgatca atctccagta 1050
 gcagccatct tgccaaaaga aggtaaaatt gatgaagtct atgaagcaat 1100

aactcacgct catcctaadc ttactgttta caaaaaagaa gacgttccag 1150
aaaggtggca ttacaaatac aacagtcgaa ttcaaccaat catagcagtg 1200
gctgatgaag ggtggcacat ttacagaat aagtcagatg actttctgtt 1250
aggcaaccac ggttacgata atgcgttagc agatatgcat ccaatatatt 1300
tagcccatgg tctctgccttc agaaagaatt tctcaaaaga agccatgaac 1350
tccacagatt tgtaccact actatgccac ctctcaata tcaactgccat 1400
gccacacaat ggatcattct ggaatgtcca ggatctgtct aattcagcaa 1450
tgccaagggg ggtcccttat acacagagta ctatactctt ccttggtagt 1500
gttaaaccag cagaatatga ccaagagggg tcataccctt atttcatagg 1550
ggtctctctt ggcagcatta tagtgattgt attttttgta attttcatta 1600
agcatttaac tcacagtcac atacctgcct tacaagatat gcactgtgaa 1650
atagctcaac cattattaca agcctaattg tactttgaag tggatttgca 1700
tattgaagtg gagattccat aattatgtca gtgtttaaag gtttcaaaat 1750
ctgggaaacc agttccaaac atctgcagaa accattaagc agttacatat 1800
ttaggtatac acacacacac acacacacac atacacacac acggacacaa 1850
atacttacac ctgcaaagga ataaagatgt gagagtatgt ctccattggt 1900
cactgtagca tagggataga taagatcctg ctttatttgg acttggcgca 1950
gataatgtat atatttagca actttgcaat atgtaaagta ccttatatat 2000
tgcactttaa atttctctcc tgatgggtac ttttaattga aatgcacttt 2050
atggacagtt atgtcttata acttgattga aaatgacaac tttttgcacc 2100
catgtcacag aatacttggt acgcattggt caaaactgaag gaaatttcta 2150
ataatccga ataatagaaca tagaaatcta tctccataaa ttgagagaag 2200
aagaaggtga taagtgttga aaattaaatg tgataacctt tgaaccttga 2250
attttgagga tgtattccca acagcagaat gcaactgttg gcatctcttg 2300
tcttatttct ttccagagaa cgtgggtttt atttattttt cctcctaaa 2350
agagtcacaa actgacagat tctgtctaaa tatattgttt ctgtcataaa 2400
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aagacaccat gaatatactt ttctcttata tagttcagca atggcctgaa 2500
tagaagcaac caggcaccat ctcagcaatg ttttctcttg tttgtaatta 2550
tttgcctctt tgaaaaattaa atcactatta attcatttaa aaatcaaaat 2600
ggataaaaaa aaaaaaaaaa aaa 2623

<210> 285

<211> 477
 <212> PRT
 <213> Homo sapiens

<400> 285

Met	Thr	Ser	Lys	Phe	Ile	Leu	Val	Ser	Phe	Ile	Leu	Ala	Ala	Leu	
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Ser	Leu	Ser	Thr	Thr	Phe	Ser	Leu	Gln	Leu	Asp	Gln	Gln	Lys	Val	
				20					25					30	
Leu	Leu	Val	Ser	Phe	Asp	Gly	Phe	Arg	Trp	Asp	Tyr	Leu	Tyr	Lys	
				35					40					45	
Val	Pro	Thr	Pro	His	Phe	His	Tyr	Ile	Met	Lys	Tyr	Gly	Val	His	
				50					55					60	
Val	Lys	Gln	Val	Thr	Asn	Val	Phe	Ile	Thr	Lys	Thr	Tyr	Pro	Asn	
				65					70					75	
His	Tyr	Thr	Leu	Val	Thr	Gly	Leu	Phe	Ala	Glu	Asn	His	Gly	Ile	
				80					85					90	
Val	Ala	Asn	Asp	Met	Phe	Asp	Pro	Ile	Arg	Asn	Lys	Ser	Phe	Ser	
				95					100					105	
Leu	Asp	His	Met	Asn	Ile	Tyr	Asp	Ser	Lys	Phe	Trp	Glu	Glu	Ala	
				110					115					120	
Thr	Pro	Ile	Trp	Ile	Thr	Asn	Gln	Arg	Ala	Gly	His	Thr	Ser	Gly	
				125					130					135	
Ala	Ala	Met	Trp	Pro	Gly	Thr	Asp	Val	Lys	Ile	His	Lys	Arg	Phe	
				140					145					150	
Pro	Thr	His	Tyr	Met	Pro	Tyr	Asn	Glu	Ser	Val	Ser	Phe	Glu	Asp	
				155					160					165	
Arg	Val	Ala	Lys	Ile	Val	Glu	Trp	Phe	Thr	Ser	Lys	Glu	Pro	Ile	
				170					175					180	
Asn	Leu	Gly	Leu	Leu	Tyr	Trp	Glu	Asp	Pro	Asp	Asp	Met	Gly	His	
				185					190					195	
His	Leu	Gly	Pro	Asp	Ser	Pro	Leu	Met	Gly	Pro	Val	Ile	Ser	Asp	
				200					205					210	
Ile	Asp	Lys	Lys	Leu	Gly	Tyr	Leu	Ile	Gln	Met	Leu	Lys	Lys	Ala	
				215					220					225	
Lys	Leu	Trp	Asn	Thr	Leu	Asn	Leu	Ile	Ile	Thr	Ser	Asp	His	Gly	
				230					235					240	
Met	Thr	Gln	Cys	Ser	Glu	Glu	Arg	Leu	Ile	Glu	Leu	Asp	Gln	Tyr	
				245					250					255	
Leu	Asp	Lys	Asp	His	Tyr	Thr	Leu	Ile	Asp	Gln	Ser	Pro	Val	Ala	
				260					265					270	
Ala	Ile	Leu	Pro	Lys	Glu	Gly	Lys	Phe	Asp	Glu	Val	Tyr	Glu	Ala	
				275					280					285	
Leu	Thr	His	Ala	His	Pro	Asn	Leu	Thr	Val	Tyr	Lys	Lys	Glu	Asp	

290	295	300
Val Pro Glu Arg Trp His Tyr Lys Tyr	Asn Ser Arg Ile Gln Pro	315
305	310	
Ile Ile Ala Val Ala Asp Glu Gly Trp	His Ile Leu Gln Asn Lys	330
320	325	
Ser Asp Asp Phe Leu Leu Gly Asn His	Gly Tyr Asp Asn Ala Leu	345
335	340	
Ala Asp Met His Pro Ile Phe Leu Ala	His Gly Pro Ala Phe Arg	360
350	355	
Lys Asn Phe Ser Lys Glu Ala Met Asn	Ser Thr Asp Leu Tyr Pro	375
365	370	
Leu Leu Cys His Leu Leu Asn Ile Thr	Ala Met Pro His Asn Gly	390
380	385	
Ser Phe Trp Asn Val Gln Asp Leu Leu	Asn Ser Ala Met Pro Arg	405
395	400	
Val Val Pro Tyr Thr Gln Ser Thr Ile	Leu Leu Pro Gly Ser Val	420
410	415	
Lys Pro Ala Glu Tyr Asp Gln Glu Gly	Ser Tyr Pro Tyr Phe Ile	435
425	430	
Gly Val Ser Leu Gly Ser Ile Ile Val	Ile Val Phe Phe Val Ile	450
440	445	
Phe Ile Lys His Leu Ile His Ser Gln	Ile Pro Ala Leu Gln Asp	465
455	460	
Met His Ala Glu Ile Ala Gln Pro Leu	Leu Gln Ala	
470	475	

<210> 286
 <211> 1337
 <212> DNA
 <213> Homo sapiens

<400> 286
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 cgggaggccc aggacaggcc caccctcgg ggcgggaggc agccggggtg 100
 agggaggtga agaaaccaag acgcagagag gccaaagcccc ttgccttggg 150
 tcacacagcc aaaggaggca gagccagaac tcacaaccag atccagaggc 200
 aacaggggaca tggccacctg ggacgaaaag gcagtcaccc gcaggggcaa 250
 ggtggctccc gctgagagga tgagcaagtt ottaaggcac ttacgggtog 300
 tgggagacga ctaccatgcc tggacatca actacaagaa atgggagaa 350
 gaagaggagg aggaggagga ggagcagcca ccaccacac cagtctcagg 400
 cgaggaaggc agagctgcag cccctgacgt tgccctgcc cctggccccg 450
 caccagggc ccccttgac ttcaggggca tgttgaggaa actgttcagc 500

tcccacaggt ttcaggtcat catcatctgc ttggtggttc tggatgcct 550
 ctggtgctt gctgagctca tctggacct gaagatcatc cagcccgaca 600
 agaataacta tgcggccatg gtattccact acatgagcat caccatcttg 650
 gtctttttta tgatggagat catcttttaa ttatttgctt tccgcttgag 700
 ttctttcacc acaagtttga gatcctggat gccgcgtcgtg gtggtggtct 750
 cattcatcct ggacattgtc ctctgttcc aggagcacca gtttgaggct 800
 ctgggctcgc tgattctgct ccgctgttgg cgggtggccc ggatcatcaa 850
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 ctctcacaca gccaccgtga aagtcctgga gtaaaatgtg ctgtgtacag 1100
 aagagagaga aggaagcagg ctggcatgtt cactgggctg gtgttacgac 1150
 agagaacctg acagtcaactg gccagttatc acttcagatt acaaatcaca 1200
 cagagcatct gctgttttc aatcacaa gaacaaaacc aaaatctata 1250
 aagatattct gaaaatatga cagaatttga caaataaaag cataaacgtg 1300
 taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1337

<210> 287
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 287
 Met Ala Thr Trp Asp Glu Lys Ala Val Thr Arg Arg Ala Lys Val
 1 5 10 15
 Ala Pro Ala Glu Arg Met Ser Lys Phe Leu Arg His Phe Thr Val
 20 25 30
 Val Gly Asp Asp Tyr His Ala Trp Asn Ile Asn Tyr Lys Lys Trp
 35 40 45
 Glu Asn Glu Glu Glu Glu Glu Glu Gln Pro Pro Pro Thr
 50 55 60
 Pro Val Ser Gly Glu Glu Gly Arg Ala Ala Pro Asp Val Ala
 65 70 75
 Pro Ala Pro Gly Pro Ala Pro Arg Ala Pro Leu Asp Phe Arg Gly
 80 85 90
 Met Leu Arg Lys Leu Phe Ser Ser His Arg Phe Gln Val Ile Ile
 95 100 105
 Ile Cys Leu Val Val Leu Asp Ala Leu Leu Val Leu Ala Glu Leu
 110 115 120

Ile Leu Asp Leu Lys Ile Ile Gln Pro Asp Lys Asn Asn Tyr Ala
125 130 135
Ala Met Val Phe His Tyr Met Ser Ile Thr Ile Leu Val Phe Phe
140 145 150
Met Met Glu Ile Ile Phe Lys Leu Phe Val Phe Arg Leu Ser Ser
155 160 165
Phe Thr Thr Ser Leu Arg Ser Trp Met Pro Val Val Val Val Val
170 175 180
Ser Phe Ile Leu Asp Ile Val Leu Leu Phe Gln Glu His Gln Phe
185 190 195
Glu Ala Leu Gly Leu Leu Ile Leu Leu Arg Leu Trp Arg Val Ala
200 205 210
Arg Ile Ile Asn Gly Ile Ile Ile Ser Val Lys Thr Arg Ser Glu
215 220 225
Arg Gln Leu Leu Arg Leu Lys Gln Met Asn Val Gln Leu Ala Ala
230 235 240
Lys Ile Gln His Leu Glu Phe Ser Cys Ser Glu Lys Pro Leu Asp
245 250 255

<210> 288
<211> 3334
<212> DNA
<213> Homo sapiens

<400> 288
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cccagacga gttccagtac tttgagtcga aggggtccc tgcgagctg 150
aagtccattt tcaagctcag tgtcttcac ccctcccagg aattctccac 200
ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250
atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300
aagaagctga ggctggtgtt taagattttg gacaaaaaga atgatggagc 350
cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400
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acgatgacca tcgactggaa cgagtggaga gactaccacc tctccacc 500
cgtggaatac atccccgaga tcatctctca ctggaagcat tccacgatct 550
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aggcagacgg ggaatgtgtg gagacacctg gtggcaggag gtggggcagg 650
ggccgtatcc agaacctgca cgccccccct ggacaggctc aagggtgctca 700
tgcaggtcca tgctcccgca agcaacaaca tgggcatcgt tgggtggcttc 750

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 caccagagagc ttgtggcagg gtccttgga gggggccatgc cccagagcag 950
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 cccctatgcc ggcatcgacc ttgcagtcta cgagacgctc aagaatgcct 1150
 ggctgcagca ctatgcagt aacagcgctg accccggcgt gtttgtgtc 1200
 ctggcctgtg gcacatgtc cagtacctgt ggccagctgg ccagctaccc 1250
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 aaggcaagt ctgggggtca tgggtgctct agctggcctg gacctgtca 2200
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 ggcagtggag caccatgtt gagggcgaa ggcagagcgt ttgtgtgttc 2300
 tggggaggga aggaaaaggt gttggaggcc ttaattatg actgttggga 2350

aaagggtttt gtcagaaagg acaagccgga caaatgagcg acttctgtgc 2400
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 ccagccccc attocacttg tgtcactgct tggaacctat ttattttgta 2550
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 aatagcttgt cattttcaag ttcatttttt attcatattt atgttcacatg 2650
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 ggggggcctt gggccgctgc agtcacatct gtccagagaa attccttttg 2750
 ggactggagg cagaaaagcg gccagaagcg agcagccctg gctcctttcc 2800
 ttggcaggt tggggaaggg cttgccccca gccttaggat ttcagggttt 2850
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 aatccagtta tttctgcgc tgcgagggtt tctttatttc actcttttct 2950
 gaatgtcaag gcagtgggtt gcctctcact gtgaatttgt ggtgggcggg 3000
 ggctggagga gaggggtggg ggctggctcc gtccctccca gcctctctgt 3050
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 aatgcaaaaa ttgttatata tgaacatata actggagtcg tcaaaaaagca 3200
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 289

<211> 469

<212> PRT

<213> Homo sapiens

<400> 289

Met	Leu	Cys	Leu	Cys	Leu	Tyr	Val	Pro	Val	Ile	Gly	Glu	Ala	Gln
1				5					10					15

Thr	Glu	Phe	Gln	Tyr	Phe	Glu	Ser	Lys	Gly	Leu	Pro	Ala	Glu	Leu
				20					25					30

Lys	Ser	Ile	Phe	Lys	Leu	Ser	Val	Phe	Ile	Pro	Ser	Gln	Glu	Phe
				35					40					45

Ser	Thr	Tyr	Arg	Gln	Trp	Lys	Gln	Lys	Ile	Val	Gln	Ala	Gly	Asp
				50					55					60

Lys	Asp	Leu	Asp	Gly	Gln	Leu	Asp	Phe	Glu	Glu	Phe	Val	His	Tyr
				65					70					75

Leu	Gln	Asp	His	Glu	Lys	Lys	Leu	Arg	Leu	Val	Phe	Lys	Ile	Leu
				80					85					90

Asp	Lys	Lys	Asn	Asp	Gly	Arg	Ile	Asp	Ala	Gln	Glu	Ile	Met	Gln	95	100	105
Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu	Gln	Gln	Ala	Glu	110	115	120
Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met	Thr	Ile	Asp	125	130	135
Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val	Glu	Asn	140	145	150
Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe	Asp	155	160	165
Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu	170	175	180
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	185	190	195
Ala	Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	200	205	210
Lys	Val	Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	215	220	225
Ile	Val	Gly	Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	230	235	240
Ser	Leu	Trp	Arg	Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	245	250	255
Glu	Ser	Ala	Ile	Lys	Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	260	265	270
Val	Gly	Ser	Asp	Gln	Glu	Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	275	280	285
Ala	Gly	Ser	Leu	Ala	Gly	Ala	Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	290	295	300
Met	Glu	Val	Leu	Lys	Thr	Arg	Met	Ala	Leu	Arg	Lys	Thr	Gly	Gln	305	310	315
Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu	320	325	330
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly	335	340	345
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu	350	355	360
Lys	Asn	Ala	Trp	Leu	Gln	His	Tyr	Ala	Val	Asn	Ser	Ala	Asp	Pro	365	370	375
Gly	Val	Phe	Val	Leu	Leu	Ala	Cys	Gly	Thr	Met	Ser	Ser	Thr	Cys	380	385	390
Gly	Gln	Leu	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	395	400	405

Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 410 415 420
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu
 425 430 435
 Tyr Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val
 440 445 450
 Ser Ile Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly
 455 460 465
 Val Gln Ser Arg

<210> 290
 <211> 1658
 <212> DNA
 <213> Homo sapiens

<400> 290
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 atttcagga gacactccat cacagtcact actgtgcct cagctgggaa 200
 cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250
 tttctgatat cgtgatacaa tggctgaagg aaggtgtttt aggtctgggtc 300
 catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350
 cagaggccgg acagcagtggt ttgctgatca agtgatagtt ggcaatgcct 400
 ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450
 tatatcatca cttctaaagg caaggggaat gctaaccttg agtataaaac 500
 tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550
 agaccttgcg gtgtgaggct ccccgatggt tccccagcc cacagtggtc 600
 tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650
 cagctttgag ctgaactctg agaatgtgac catgaaggtt gtgtctgtgc 700
 tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaaatgc 750
 attgccaaag caacagggga tatcaaagt acagaatcgg agatcaaaa 800
 gggagtgac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850
 ctttctttgc catcagctgg gcaacttctg ctctcagccc ttacctgatg 900
 ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950
 acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000
 ttctgggagg aatgaattc atatctagaa gtctggagtg agcaacaagg 1050

	155		160		165
Leu Arg Cys Glu	Ala Pro Arg Trp Phe	Pro Gln Pro Thr Val	Val		
	170		175		180
Trp Ala Ser Gln	Val Asp Gln Gly Ala Asn	Phe Ser Glu Val Ser			
	185		190		195
Asn Thr Ser Phe	Glu Leu Asn Ser Glu	Asn Val Thr Met Lys	Val		
	200		205		210
Val Ser Val Leu	Tyr Asn Val Thr Ile	Asn Asn Thr Tyr Ser	Cys		
	215		220		225
Met Ile Glu Asn	Asp Ile Ala Lys Ala	Thr Gly Asp Ile Lys	Val		
	230		235		240
Thr Glu Ser Glu	Ile Lys Arg Arg Ser	His Leu Gln Leu Leu	Asn		
	245		250		255
Ser Lys Ala Ser	Leu Cys Val Ser Ser	Phe Phe Ala Ile Ser	Trp		
	260		265		270
Ala Leu Leu Pro	Leu Ser Pro Tyr Leu	Met Leu Lys			
	275		280		

<210> 292
 <211> 1484
 <212> DNA
 <213> Homo sapiens

<400> 292
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 tgaagcgggc ctccgcgggc ctgcagcggg ttcattgagcc gacctggggc 150
 cagcagttgc tacaggagat gaagaccctc ttcttgaata ctgagtacct 200
 gatgcccctt ctccccaacc agtgtggatc ccttctctat tacctcaact 250
 tggcatcgac agatctgacc ctggctgtgc ccattctgtaa ctctctggct 300
 atcatcttca cactgattgt tgggaaggcc cttggagaag atattggtg 350
 aaaacgtaag ttagactact gcgagtgcgg gacgcagctc tgtggatctc 400
 gacataactg tgttagttcc ttcccagaac ccattctccc agagtgggtg 450
 aggacaaggc cttttcccat cctgcccttt cctctgcagc tgttttgcct 500
 ccttgtaggc atcagagttc ccttcccctg gacagtctgg agaaagacag 550
 aggotggggg ttgggattga agaccagacc ccattctgagc cttctctcca 600
 gccctgtacc agctcctact ggcattggctg agctcagacc ctccgtgatt 650
 ctgcctatta tcccaggagc agttgtctggc atggtgctca ccgtgatagg 700
 aatttcaact tgcatacaaa gtcagttag taagaccagc gggcaacagt 750
 ctaccctttg agtggggcga acccaacttc agctctgctg cctccaggaa 800

gcccctgggc catgaagtgc tggcagtgag cggatggacc tagcacttcc 850
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 tggatcacaa taagagaaca agagtgaag agttttgtaa ccttcaagt 950
 ctgttcagct gcggggattt agcacaggag actctacgct caccctcagc 1000
 aacctttctg cccagcagc tctcttctcg ctaacatctc aggcctcccag 1050
 cccagccacc attactgtgg cctgatctgg actatcatgg tggcaggttc 1100
 catggactgc agaactccag ctgcatggaa agggccagct gcagactttg 1150
 agccagaaat gcaaacggga ggcctctggg actcagtcag agcgctttgg 1200
 ctgaatgagg ggtggaacgg agggaagaag gtgcgtcgga gtggcagatg 1250
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 agaaatcctc actgccagcc cctcttaaac aggtagagag ctgtgagccc 1350
 cagccccacc tgactccagc acacctggcg agtagtagct gtcaataaat 1400
 ctatgtaaac agacaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1450
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1484

<210> 293

<211> 180

<212> PRT

<213> Homo sapiens

<400> 293

Met	Ala	Ala	Ser	Leu	Gly	Gln	Val	Leu	Ala	Leu	Val	Leu	Val	Ala
1					5				10					15
Ala	Leu	Trp	Gly	Gly	Thr	Gln	Pro	Leu	Leu	Lys	Arg	Ala	Ser	Ala
			20						25					30
Gly	Leu	Gln	Arg	Val	His	Glu	Pro	Thr	Trp	Ala	Gln	Gln	Leu	Leu
			35						40					45
Gln	Glu	Met	Lys	Thr	Leu	Phe	Leu	Asn	Thr	Glu	Tyr	Leu	Met	Pro
			50						55					60
Phe	Leu	Leu	Asn	Gln	Cys	Gly	Ser	Leu	Leu	Tyr	Tyr	Leu	Thr	Leu
			65						70					75
Ala	Ser	Thr	Asp	Leu	Thr	Leu	Ala	Val	Pro	Ile	Cys	Asn	Ser	Leu
			80						85					90
Ala	Ile	Ile	Phe	Thr	Leu	Ile	Val	Gly	Lys	Ala	Leu	Gly	Glu	Asp
			95						100					105
Ile	Gly	Gly	Lys	Arg	Lys	Leu	Asp	Tyr	Cys	Glu	Cys	Gly	Thr	Gln
			110						115					120
Leu	Cys	Gly	Ser	Arg	His	Thr	Cys	Val	Ser	Ser	Phe	Pro	Glu	Pro
			125						130					135
Ile	Ser	Pro	Glu	Trp	Val	Arg	Thr	Arg	Pro	Phe	Pro	Ile	Leu	Pro
			140						145					150

Phe Pro Leu Gln Leu Phe Cys Phe Leu Val Ala Ile Arg Val Pro
155 160

Phe Pro Trp Thr Val Trp Arg Lys Thr Glu Ala Gly Val Trp Asp
170 175 180

<210> 294
<211> 1164
<212> DNA
<213> Homo sapiens

<400> 294
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tcgaaaagat tccgcaataa aacttttgcca gtgggaagta cctagtgaaa 150
cggcctaaga tgccacttct tctcatgtcc caggcttgag gccctgtggt 200
ccccatcctt gggagaagtc agctccagca ccatgaaggc catcctcgtt 250
gtgtgtatca ctgcagtgtc tgttcagctc gtagaatctc tgagctgcgt 300
gcagtgtaat tcatgggaaa aatcctgtgt caacagcatt gcctctgaat 350
gtccctcaca tgccaacacc agctgtatca gctcctcagc cagctcctct 400
ctagagacac cagtcagatt ataccagaat atgttctgct cagcggagaa 450
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aagaacactt tcattttgta agccagtgtc gccagggaaa ggaatgcagc 550
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cctggaaatg ctatgaagaa gaacagtgtg tctttctagt tgcagaactt 700
aagaatgaca ttgagtctaa gagtctctgt ctgaaaggct gttccaacct 750
cagtaacgcc acctgtcagt tctgtctgtg tgaaaacaag actcttgagg 800
gagtcattct tcgaaagttt gagtgtgcaa atgtaaacag ctttaacccc 850
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ttgttcttca ttattaaagc actggttcat tcaactgcaa aaaaaaaaaa 1150
aaaaaaaaaa aaaa 1164

<210> 295
<211> 237
<212> PRT

<213> Homo sapiens

<400> 295

Met Lys Gly Ile Leu Val Ala Gly Ile Thr Ala Val Leu Val Ala
1 5 10 15
Ala Val Glu Ser Leu Ser Cys Val Gln Cys Asn Ser Trp Glu Lys
20 25 30
Ser Cys Val Asn Ser Ile Ala Ser Glu Cys Pro Ser His Ala Asn
35 40 45
Thr Ser Cys Ile Ser Ser Ser Ala Ser Ser Ser Leu Glu Thr Pro
50 55 60
Val Arg Leu Tyr Gln Asn Met Phe Cys Ser Ala Glu Asn Cys Ser
65 70 75
Glu Glu Thr His Ile Thr Ala Phe Thr Val His Val Ser Ala Glu
80 85 90
Glu His Phe His Phe Val Ser Gln Cys Cys Gln Gly Lys Glu Cys
95 100 105
Ser Asn Thr Ser Asp Ala Leu Asp Pro Pro Leu Lys Asn Val Ser
110 115 120
Ser Asn Ala Glu Cys Pro Ala Cys Tyr Glu Ser Asn Gly Thr Ser
125 130 135
Cys Arg Gly Lys Pro Trp Lys Cys Tyr Glu Glu Glu Gln Cys Val
140 145 150
Phe Leu Val Ala Glu Leu Lys Asn Asp Ile Glu Ser Lys Ser Leu
155 160 165
Val Leu Lys Gly Cys Ser Asn Val Ser Asn Ala Thr Cys Gln Phe
170 175 180
Leu Ser Gly Glu Asn Lys Thr Leu Gly Gly Val Ile Phe Arg Lys
185 190 195
Phe Glu Cys Ala Asn Val Asn Ser Leu Thr Pro Thr Ser Ala Pro
200 205 210
Thr Thr Ser His Asn Val Gly Ser Lys Ala Ser Leu Tyr Leu Leu
215 220 225
Ala Leu Ala Ser Leu Leu Leu Arg Gly Leu Leu Pro
230 235

<210> 296

<211> 1245

<212> DNA

<213> Homo sapiens

<400> 296

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ccagcccat ggtcccgcc gccggcgcc tgctgtgggt cctgtgtgtg 150

aatctggggtc cccgggcggc gggggcccaa ggcctgaccc agactcogac 200
cgaaatgcag cggttcagtt tacgctttgg gggcccatg acccgagct 250
accggagcac cgcccgact ggtcttcccc ggaagacaag gataatccta 300
gaggacgaga atgatgccat ggccgacgcc gaccgcctgg ctggaccagc 350
ggctgcgag ctcttggccg ccacgggtgc caccggttt agcgggtcgt 400
ccgccattaa cgaggaggat ggggtctcag aagagggggt tgtgattaat 450
gccggaagg atagaccag cagagagcct cccagtgcga ctcccaatac 500
agcggggagt tccagcacga ggtttatagc caatagtcag gagcctgaaa 550
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atctgcggct ggtgctgatg ccctggggcc cgtggcactg ccactgcaag 750
tcgggcacca tgagccggag ccggtctggg aagctgcacg gcctttccgg 800
gcgccttcca gttggggcgc tgagccagct ccgcacggag cacaagcctt 850
gcacattaca acaatgtccc tgcaaccgac ttcgggaaga gtgccccctg 900
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agagatgcaa ccaatagaca gaaaccagag gtaatggcca cttcatccac 1150
atgaggagat gtcagtatct caacctctct tgccctttca atcctagcac 1200
ccactagata tttttagtac agaaaaacaa aactggaaaa cacia 1245

<210> 297

<211> 341

<212> PRT

<213> Homo sapiens

<400> 297

Met	Val	Pro	Ala	Ala	Gly	Ala	Leu	Leu	Trp	Val	Leu	Leu	Leu	Asn
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Leu	Gly	Pro	Arg	Ala	Ala	Gly	Ala	Gln	Gly	Leu	Thr	Gln	Thr	Pro
				20					25					30
Thr	Glu	Met	Gln	Arg	Val	Ser	Leu	Arg	Phe	Gly	Gly	Pro	Met	Thr
				35					40					45
Arg	Ser	Tyr	Arg	Ser	Thr	Ala	Arg	Thr	Gly	Leu	Pro	Arg	Lys	Thr
				50					55					60
Arg	Ile	Ile	Leu	Glu	Asp	Glu	Asn	Asp	Ala	Met	Ala	Asp	Ala	Asp

65	70	75
Arg Leu Ala Gly	Pro Ala Ala Ala Glu	Leu Leu Ala Ala Thr Val
80	85	90
Ser Thr Gly Phe	Ser Arg Ser Ser Ala	Ile Asn Glu Glu Asp Gly
95	100	105
Ser Ser Glu Glu	Gly Val Val Ile Asn	Ala Gly Lys Asp Ser Thr
110	115	120
Ser Arg Glu Leu	Pro Ser Ala Thr Pro	Asn Thr Ala Gly Ser Ser
125	130	135
Ser Thr Arg Phe	Ile Ala Asn Ser Gln	Glu Pro Glu Ile Arg Leu
140	145	150
Thr Ser Ser Leu	Pro Arg Ser Pro Gly	Arg Ser Thr Glu Asp Leu
155	160	165
Pro Gly Ser Gln	Ala Thr Leu Ser Gln	Trp Ser Thr Pro Gly Ser
170	175	180
Thr Pro Ser Arg	Trp Pro Ser Pro Ser	Pro Thr Ala Met Pro Ser
185	190	195
Pro Glu Asp Leu	Arg Leu Val Leu Met	Pro Trp Gly Pro Trp His
200	205	210
Cys His Cys Lys	Ser Gly Thr Met Ser	Arg Ser Arg Ser Gly Lys
215	220	225
Leu His Gly Leu	Ser Gly Arg Leu Arg	Val Gly Ala Leu Ser Gln
230	235	240
Leu Arg Thr Glu	His Lys Pro Cys Thr	Tyr Gln Gln Cys Pro Cys
245	250	255
Asn Arg Leu Arg	Glu Glu Cys Pro Leu	Asp Thr Ser Leu Cys Thr
260	265	270
Asp Thr Asn Cys	Ala Ser Gln Ser Thr	Thr Ser Thr Arg Thr Thr
275	280	285
Thr Thr Pro Phe	Pro Thr Ile His Leu	Arg Ser Ser Pro Ser Leu
290	295	300
Pro Pro Ala Ser	Pro Cys Pro Ala Leu	Ala Phe Trp Lys Arg Val
305	310	315
Arg Ile Gly Leu	Glu Asp Ile Trp Asn	Ser Leu Ser Ser Val Phe
320	325	330
Thr Glu Met Gln	Pro Ile Asp Arg Asn	Gln Arg
335	340	

<210> 298

<211> 2692

<212> DNA

<213> Homo sapiens

<400> 298

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 cctttgcccg cctcctgcaa acctcacagg gtccccacac aacagtcccc 2100
 tccaagca gccctcga ggcagaggaa ggaaaaatgg gatggtggg 2150
 gctctctcca tctctctttt ctccttgctt tcgcatggct ggcttcccc 2200
 tccaaaacct ccattccctt gctgccagcc cctttgcat agcctgattt 2250
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 gcttcttttg atactgaaa ctttaaggt gggaggggtg caaggatgt 2650
 gcttaataaa tcaattccaa gcctcaaaaa aaaaaaaaaa aa 2692

<210> 299
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 299
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 Ala Leu Ala Ser Gly Ser Gln Gly Asp Arg Glu Pro Val Tyr Arg
 20 25 30
 Asp Cys Val Leu Gln Cys Glu Glu Gln Asn Cys Ser Gly Gly Ala
 35 40 45
 Leu Asn His Phe Arg Ser Arg Gln Pro Ile Tyr Met Ser Leu Ala
 50 55 60
 Gly Trp Thr Cys Arg Asp Asp Cys Lys Tyr Glu Cys Met Trp Val
 65 70 75

Thr Val Gly Leu Tyr Leu Gln Glu Gly His Lys Val Pro Gln Phe
 80 85 90
 His Gly Lys Trp Pro Phe Ser Arg Phe Leu Phe Phe Gln Glu Pro
 95 100 105
 Ala Ser Ala Val Ala Ser Phe Leu Asn Gly Leu Ala Ser Leu Val
 110 115 120
 Met Leu Cys Arg Tyr Arg Thr Phe Val Pro Ala Ser Ser Pro Met
 125 130 135
 Tyr His Thr Cys Val Ala Phe Ala Trp Val Ser Leu Asn Ala Trp
 140 145 150
 Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu
 155 160 165
 Lys Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile
 170 175 180
 Tyr Leu Cys Cys Val Arg Thr Val Gly Leu Gln His Pro Ala Val
 185 190 195
 Val Ser Ala Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val His
 200 205 210
 Val Ser Tyr Leu Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu
 215 220 225
 Val Ala Asn Val Ala Ile Gly Leu Val Asn Val Val Trp Trp Leu
 230 235 240
 Ala Trp Cys Leu Trp Asn Gln Arg Arg Leu Pro His Val Arg Lys
 245 250 255
 Cys Val Val Val Val Leu Leu Leu Gln Gly Leu Ser Leu Leu Glu
 260 265 270
 Leu Leu Asp Phe Pro Pro Leu Phe Trp Val Leu Asp Ala His Ala
 275 280 285
 Ile Trp His Ile Ser Thr Ile Pro Val His Val Leu Phe Phe Ser
 290 295 300
 Phe Leu Glu Asp Asp Ser Leu Tyr Leu Leu Lys Glu Ser Glu Asp
 305 310 315
 Lys Phe Lys Leu Asp
 320

<210> 300

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 300

ggccgcctgg aattgtggga gttgtgtctg ccactcggct gcgcgaggcc 50

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cctctgggca tgctgcttgg gctgctgatg gccgcctgct tcacctctct 150

cctcagtcac cagaacctga aggagtgttc cctgaccaac ccagagaaga 200
 gcagcaccac agaaacggag agaaaagaaa ccaaagccga ggaggagctg 250
 gatgccgaag tcctggagggt gttccaccgc acgcatgagt ggcaggccct 300
 tcagccaggg caggctgtcc ctgcaggatc ccacgtacgg ctgaattctc 350
 agactgggga aagagaggca aaactccaat atgaggacaa gttccgaaat 400
 aatttgaag gcaaaaggct ggatatcaac accaacacct acacatctca 450
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 gttcaagga agacaaggca aggcaggctg aggtaaagcg gctcttcocg 550
 cccattgagg aactgaagaa agactttgat gagctgaatg ttgtcattga 600
 gactgacatg cagatcatgg tacggctgat caacaagtc aatagtcca 650
 gctccagttt ggaagagaag attgctgcgc tctttgatct tgaatattat 700
 gtccatcaga tggacaatgc gcaggacctg ctttcctttg gtggtcttca 750
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 gaggccatcg aagggggagc cctgcagaag ctgctgtgta tcctggccac 900
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 ccagggtctg gccagcctgg agctgcagga tggtaggac gagggtact 1400
 tcaggagct gctgggctct gtcaacagct tgctgaagga gctgagatga 1450
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 ccagcgtggg tgggcttctc aggcaggagg acatcttgcc agtgctggct 1550
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
 aaaaaaaaaa aaaaaaaaaa aaaa 1674

<210> 301

<211> 461
 <212> PRT
 <213> Homo sapiens

<400> 301

Met	Ala	Pro	Gln	Ser	Leu	Pro	Ser	Ser	Arg	Met	Ala	Pro	Leu	Gly	1	5	10	15
Met	Leu	Leu	Gly	Leu	Leu	Met	Ala	Ala	Cys	Phe	Thr	Phe	Cys	Leu	20	25	30	
Ser	His	Gln	Asn	Leu	Lys	Glu	Phe	Ala	Leu	Thr	Asn	Pro	Glu	Lys	35	40	45	
Ser	Ser	Thr	Lys	Glu	Thr	Glu	Arg	Lys	Glu	Thr	Lys	Ala	Glu	Glu	50	55	60	
Glu	Leu	Asp	Ala	Glu	Val	Leu	Glu	Val	Phe	His	Pro	Thr	His	Glu	65	70	75	
Trp	Gln	Ala	Leu	Gln	Pro	Gly	Gln	Ala	Val	Pro	Ala	Gly	Ser	His	80	85	90	
Val	Arg	Leu	Asn	Leu	Gln	Thr	Gly	Glu	Arg	Glu	Ala	Lys	Leu	Gln	95	100	105	
Tyr	Glu	Asp	Lys	Phe	Arg	Asn	Asn	Leu	Lys	Gly	Lys	Arg	Leu	Asp	110	115	120	
Ile	Asn	Thr	Asn	Thr	Tyr	Thr	Ser	Gln	Asp	Leu	Lys	Ser	Ala	Leu	125	130	135	
Ala	Lys	Phe	Lys	Glu	Gly	Ala	Glu	Met	Glu	Ser	Ser	Lys	Glu	Asp	140	145	150	
Lys	Ala	Arg	Gln	Ala	Glu	Val	Lys	Arg	Leu	Phe	Arg	Pro	Ile	Glu	155	160	165	
Glu	Leu	Lys	Lys	Asp	Phe	Asp	Glu	Leu	Asn	Val	Val	Ile	Glu	Thr	170	175	180	
Asp	Met	Gln	Ile	Met	Val	Arg	Leu	Ile	Asn	Lys	Phe	Asn	Ser	Ser	185	190	195	
Ser	Ser	Ser	Leu	Glu	Glu	Lys	Ile	Ala	Ala	Leu	Phe	Asp	Leu	Glu	200	205	210	
Tyr	Tyr	Val	His	Gln	Met	Asp	Asn	Ala	Gln	Asp	Leu	Leu	Ser	Phe	215	220	225	
Gly	Gly	Leu	Gln	Val	Val	Ile	Asn	Gly	Leu	Asn	Ser	Thr	Glu	Pro	230	235	240	
Leu	Val	Lys	Glu	Tyr	Ala	Ala	Phe	Val	Leu	Gly	Ala	Ala	Phe	Ser	245	250	255	
Ser	Asn	Pro	Lys	Val	Gln	Val	Glu	Ala	Ile	Glu	Gly	Gly	Ala	Leu	260	265	270	
Gln	Lys	Leu	Leu	Val	Ile	Leu	Ala	Thr	Glu	Gln	Pro	Leu	Thr	Ala	275	280	285	
Lys	Lys	Lys	Val	Leu	Phe	Ala	Leu	Cys	Ser	Leu	Leu	Arg	His	Phe				

290	295	300
Pro Tyr Ala Gln	Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val	
305	310	315
Leu Arg Thr Leu	Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val	
320	325	330
Arg Val Val Thr	Leu Leu Tyr Asp Leu Val Thr Glu Lys Met Phe	
335	340	345
Ala Glu Glu Glu	Ala Glu Leu Thr Gln Glu Met Ser Pro Glu Lys	
350	355	360
Leu Gln Gln Tyr	Arg Gln Val His Leu Leu Pro Gly Leu Trp Glu	
365	370	375
Gln Gly Trp Cys	Glu Ile Thr Ala His Leu Leu Ala Leu Pro Glu	
380	385	390
His Asp Ala Arg	Glu Lys Val Leu Gln Thr Leu Gly Val Leu Leu	
395	400	405
Thr Thr Cys Arg	Asp Arg Tyr Arg Gln Asp Pro Gln Leu Gly Arg	
410	415	420
Thr Leu Ala Ser	Leu Gln Ala Glu Tyr Gln Val Leu Ala Ser Leu	
425	430	435
Glu Leu Gln Asp	Gly Glu Asp Glu Gly Tyr Phe Gln Glu Leu Leu	
440	445	450
Gly Ser Val Asn	Ser Leu Leu Lys Glu Leu Arg	
455	460	

<210> 302
 <211> 2136
 <212> DNA
 <213> Homo sapiens

<400> 302
 ttcggtctcc gtagaggaag tggcgcgagc cttcatttgg ggtttcggtt 50
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 tccatttgc ctgtcttgtt caggccccca ccccccttc caccgtacca 200
 gccatggggg ctgcggtgtt tttcgctgc actttcgtcg cgttcggccc 250
 gcccttcgcg tttttcttga tcactgtggc tggggaccgc cttcgcgtta 300
 tcactcgtgt cgcaggggca tttttctggc tgggtctcct gctcgtgcc 350
 tctgtgtgtt ggttcattt ggtccatgtg accgaccggt cagatgccc 400
 gctccagtac ggcctcctga tttttgtgc tgcgtctct gtcctctac 450
 agggaggtgt ccgctttgcc tactacaagc tgcttaagaa ggcagatgaa 500
 gggttagcat cgctgagtga ggacggaaga tcacccatct ccattcgcca 550

gatggcctat gtttctggtc tctccttcgg tatcatcagt ggtgtcttct 600
ctgttatcaa tattttggct gatgcacttg ggcaggtgt ggttgggac 650
catggagact caccctatta ctctcgtact tcagccttcc tgacagcagc 700
cattatcctg ctccatacct ttgggggagt tgtgtctttt gatgctgtg 750
agaggagacg gtactgggct ttgggccttg tggttgggag tcacctactg 800
acatcgggac tgacattcct gaaccctcgg tatgaggcca gcctgtctgc 850
catctatgca gtactgttt ccatggggct ctgggccttc atcacagctg 900
gagggtccct ccgaagtatt cagcgcagcc tcttgtgtaa ggactgacta 950
cctggactga tcgcctgaca gatcccaact gcctgtccac tgcccattgac 1000
tgagcccagc ccagcccgg gtccattgcc cacattctct gtctccttct 1050
cgtcgttcta cccactacc tccaggggtt tgctttgtcc ttttgtgacc 1100
gttagtctct aagctttacc aggagcagcc tgggttcagc cagtcaagtga 1150
ctggtgggtt tgaatctgca cttatcccca ccacctgggg acccccttgt 1200
tgtgtccagg actcccccgt tgtcagtgtc ctgctctcac cctgcccagg 1250
actcacctcc ctccccctct gcaggccgac ggcaggagga cagtcggggt 1300
atggtgtatt ctgcctcgc catcccaccc gaggaactgag ggaacctagg 1350
ggggaccctt gggcctgggg tgccctctct atgtcctcgc cctgtatttc 1400
tccatctcca gttctggaca gtgcaggttg ccaagaaaag ggacctagt 1450
tagccattgc cctggagatg aaattaatgg aggcctcaagg atagatgagc 1500
tctgagtttc tcagtaetcc ctcaagactg gacattcttg tctttttctc 1550
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aacctccttg ggctatattt tctctcctcg agttgctcct catggctggg 1700
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ttaaccacca gcacccctcc tctcccaag gtgaagtgga ggtgtctgtg 1850
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atgacatcgt agggaaggag gggagatttt ttttagttt ttaattgggg 1950
tgtgggaggg gcggggagggt tttctataaa ctgtatcatt tctgtctgag 2000
ggtggagtgt cccatccttt taatcaaggt gattgtgatt ttgactaata 2050
aaaaagaatt tgtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2100
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2136

<210> 303
 <211> 247
 <212> PRT
 <213> Homo sapiens

<400> 303
 Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe Gly
 1 5 10 15
 Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu
 20 25 30
 Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser
 35 40 45
 Leu Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr
 50 55 60
 Asp Arg Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly
 65 70 75
 Ala Ala Val Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr
 80 85 90
 Tyr Lys Leu Leu Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser
 95 100 105
 Glu Asp Gly Arg Ser Pro Ile Ser Ile Arg Gln Met Ala Tyr Val
 110 115 120
 Ser Gly Leu Ser Phe Gly Ile Ile Ser Gly Val Phe Ser Val Ile
 125 130 135
 Asn Ile Leu Ala Asp Ala Leu Gly Pro Gly Val Val Gly Ile His
 140 145 150
 Gly Asp Ser Pro Tyr Tyr Phe Leu Thr Ser Ala Phe Leu Thr Ala
 155 160 165
 Ala Ile Ile Leu Leu His Thr Phe Trp Gly Val Val Phe Phe Asp
 170 175 180
 Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu Gly Leu Val Val Gly
 185 190 195
 Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu Asn Pro Trp Tyr
 200 205 210
 Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val Ser Met Gly
 215 220 225
 Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser Ile Gln
 230 235 240
 Arg Ser Leu Leu Cys Lys Asp
 245

<210> 304
 <211> 240
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure
<222> 108, 126, 154, 198, 206, 217
<223> unknown base

<400> 304
aagctgggtt aaggaagcag aggagggtta gattcgttga gtgaggacgg 50
aagatcaacc catttccatt ccgccagatg gcctatgttt ctggtctctc 100
ccttcggnat catcagtggt gntttntctg ttatcaatat ttggctgat 150
gcantgggc caggtgtggt tgggatccat ggagactcac cctattantt 200
cctganttca gcctttntga cagcagccat tatcctgctc 240

<210> 305
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 58, 94, 132, 186, 191, 220, 240, 248, 280, 311, 332
<223> unknown base

<400> 305
gaccgaccgt tcagatgccg ggtccagta cggcttctcg atttttggtg 50
ctgctgtntc tgtccttcta caggaggtgt tccgctttgo ctantacaag 100
ctgcttaaga aggcatga ggggttagca tngctgagtg aggacggaag 150
atcacccatt tccatccgcc agatggccta tgttnttggt ntctcttcg 200
gtatcatcag tgggtgtttt tctgttatca atattttggn tgatgcantt 250
gggccaggtg tgggtgggat coactggagan tcacctatt aattcctgaa 300
ttcagccttt ntgcacagag coattatcct gntccatacc ttttggggag 350
ttgtgttttt tgatgcctgt gagaggag 378

<210> 306
<211> 655
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1, 22, 129, 133, 184
<223> unknown base

<400> 306
ngttggagaa gtggcgcgga cnttcatttg gggtttcggt tccccccctt 50
tccctttccc cggggtctgg ggtgacattg caccggcccc tcgtggggtc 100
gcgttgccac ccacgcgga ctcccagnt gngcgccct tcccatttgc 150
ctgtctggt caggccccca ccccccttc cactgacca gccatggggg 200
ctgcggtgtt tttcggctgc actttctctg cgttcggccc ggccttcgag 250

cttttcttga tcaactgtggc tggggaccog cttcgcgtta tcaactcgtt 300
 cgcaggggca tttttctggc tgggtccct gctcctggcc tctgtgtct 350
 ggttcattctt ggtccatgtg accgaccgtt cagatgccog gctccagtac 400
 ggccctctga tttttggtgc tgcgtctctt gtcctctac aggaggtgtt 450
 ccgctttgcc tactacaagc tgcttaagaa ggcagatgag gggttagcat 500
 cgtgagtgga ggacggaaga tcacccatct ccatccgcc gatggcctat 550
 gtttctgtgc tctccttcgg tatcatcagt ggtgtcttct ctgttatcaa 600
 tattttggct gatgcacttg ggccaggtgt ggttgggato catggagact 650
 ccccc 655

<210> 307
 <211> 650
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 52, 89, 128
 <223> unknown base

<400> 307
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 onttccccgg ggtctggggg tgacattgca cgcgcccct cgtggggctg 100
 cgttgccacc ccacggggac tccccagntg gcgcgcccct cccatttgcc 150
 tgtcctggtc agggcccccac cccccctccc acctgaccag ccatgggggc 200
 tgcggtgttt ttogggtgc actttcgtcg cgttcgggcc oggccttcgc 250
 gcttttcttg atcaactgtg ctggggaccc gcttcgcgtt atcactcgtg 300
 tgcaggggac atttttctgg ctggtctccc tgcctcggc ctctgtgttc 350
 tggttcatct tgggtcatgt gaccgaccgg tcagatgcc ccgtccagta 400
 cggcctcctg atttttggtg ctgctgtctc tgccttcta caggaggtgt 450
 tccgctttgc ctactacaag ctgcttaaga aggcagatga ggggttagca 500
 tcgctgagtg aggcggaag atcacccatc tccatccgcc agatggccta 550
 tgtttctggt ctctccttcg gtatcatcag tgggtgtctc tctgttatca 600
 atattttggc tgatgcactt ggccaggtg tggttgggat ccatggagac 650

<210> 308
 <211> 1570
 <212> DNA
 <213> Homo sapiens

<400> 308
 gccccaggga gcagtggtg gttataactc aggcccggtg cccagagccc 50

agggaggaggc agtggccagg aaggcacagg cctgagaagt ctgaggctga 100
 gctgggagca aatccccac cccctacctg ggggacagg caagtgagac 150
 ctggtgaggg tggctcagca ggcagggaag gagaggtgtc tgtgcgtcct 200
 gcacccacat ctttctctgt cccctccttg cctgtcttg agggtgctag 250
 actcctatct tctgaattct atagtgcctg ggtctcagcg cagtgcgag 300
 ggtggcccgt ccttgtggtt cctctctacc tggggaaata aggtgcagcg 350
 gccatggcta cagcaagacc cccctggatg tgggtgctct gtgctctgat 400
 cacagccttg cttctggggg tcacagagca tgttctcgcc aacaatgatg 450
 tttcctgtga ccaccctct aacaccgtgc cctctgggag caaccaggac 500
 ctgggagctg gggccgggga agacgcccgg tcggatgaca gcagcagccg 550
 catcatcaat ggatccgact gcgatatgca caccagccg tggcaggccg 600
 cgctgttgct aaggcccaac cagctctact gcggggcggg gttggtgcat 650
 ccacagtggc tgctcacggc cgccactgc aggaagaaag ttttcagagt 700
 ccgtctcggc cactactccc tgtcaccagt ttatgaatct gggcagcaga 750
 tgttccaggg ggtcaaatcc atccccacc ctggctactc ccaccctggc 800
 cactctaacg acctcatgct catcaaatg aacagaagaa ttctgccacc 850
 taaagatgtc agaccatca acgtctcctc tcattgtccc tctgtctgga 900
 caaagtgtt ggtgtctggtc tgggggacaa ccaagagccc ccaagtgcac 950
 ttccetaagg tctccagtg cttgaatct agcgtgctaa gtcagaaaaa 1000
 gtgcgaggat gcttaccga gacagataga tgacaccatg ttctgcgcgg 1050
 gtgacaaagc aggtagagac tctgccagg gtgattcttg ggggcctgtg 1100
 gtctgcaatg gctcctgca gggactctg tctggggag attacccttg 1150
 tgcccgccc aacagaccgg gtgtctacac gaacctctgc aagttcacca 1200
 agtgatcca gaaaccatc caggccaact cctgagtcac ccaggactc 1250
 agcacaccg catccccacc tgtgcaggg acagccctga cactccttc 1300
 agacctcat tcttcccag agatgttgag aatgttcac tctccagccc 1350
 ctgaccccat gtctcctgga ctacgggtct gcttcccca cattggggtg 1400
 accgtgtctc tctagttgaa cctggggaac aatttccaaa actgtccagg 1450
 gggggggttg cgtctcaatc tccctggggc actttcatcc tcaagctcag 1500
 ggcccatccc tttctgcag ctctgaccca aatttagtcc cagaaataaa 1550
 ctgagaagtg gaaaaaaaaa 1570

<210> 309

<211> 293
 <212> PRT
 <213> Homo sapiens

<400> 309

Met	Ala	Thr	Ala	Arg	Pro	Pro	Trp	Met	Trp	Val	Leu	Cys	Ala	Leu	1	5	10	15
Ile	Thr	Ala	Leu	Leu	Leu	Gly	Val	Thr	Glu	His	Val	Leu	Ala	Asn	20	25	30	
Asn	Asp	Val	Ser	Cys	Asp	His	Pro	Ser	Asn	Thr	Val	Pro	Ser	Gly	35	40	45	
Ser	Asn	Gln	Asp	Leu	Gly	Ala	Gly	Ala	Gly	Glu	Asp	Ala	Arg	Ser	50	55	60	
Asp	Asp	Ser	Ser	Ser	Arg	Ile	Ile	Asn	Gly	Ser	Asp	Cys	Asp	Met	65	70	75	
His	Thr	Gln	Pro	Trp	Gln	Ala	Ala	Leu	Leu	Leu	Arg	Pro	Asn	Gln	80	85	90	
Leu	Tyr	Cys	Gly	Ala	Val	Leu	Val	His	Pro	Gln	Trp	Leu	Leu	Thr	95	100	105	
Ala	Ala	His	Cys	Arg	Lys	Lys	Val	Phe	Arg	Val	Arg	Leu	Gly	His	110	115	120	
Tyr	Ser	Leu	Ser	Pro	Val	Tyr	Glu	Ser	Gly	Gln	Gln	Met	Phe	Gln	125	130	135	
Gly	Val	Lys	Ser	Ile	Pro	His	Pro	Gly	Tyr	Ser	His	Pro	Gly	His	140	145	150	
Ser	Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asn	Arg	Arg	Ile	Arg	Pro	155	160	165	
Thr	Lys	Asp	Val	Arg	Pro	Ile	Asn	Val	Ser	Ser	His	Cys	Pro	Ser	170	175	180	
Ala	Gly	Thr	Lys	Cys	Leu	Val	Ser	Gly	Trp	Gly	Thr	Thr	Lys	Ser	185	190	195	
Pro	Gln	Val	His	Phe	Pro	Lys	Val	Leu	Gln	Cys	Leu	Asn	Ile	Ser	200	205	210	
Val	Leu	Ser	Gln	Lys	Arg	Cys	Glu	Asp	Ala	Tyr	Pro	Arg	Gln	Ile	215	220	225	
Asp	Asp	Thr	Met	Phe	Cys	Ala	Gly	Asp	Lys	Ala	Gly	Arg	Asp	Ser	230	235	240	
Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Val	Val	Cys	Asn	Gly	Ser	Leu	245	250	255	
Gln	Gly	Leu	Val	Ser	Trp	Gly	Asp	Tyr	Pro	Cys	Ala	Arg	Pro	Asn	260	265	270	
Arg	Pro	Gly	Val	Tyr	Thr	Asn	Leu	Cys	Lys	Phe	Thr	Lys	Trp	Ile	275	280	285	
Gln	Glu	Thr	Ile	Gln	Ala	Asn	Ser											

<210> 310
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 310
 tcctgtgacc acccctctaa cacc 24

<210> 311
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 311
 ctggaacatc tgctgcccag attc 24

<210> 312
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 312
 gtcgatgac agcagcagcc gcacatcaa tggatccgac tgcgatatgc 50

<210> 313
 <211> 3010
 <212> DNA
 <213> Homo sapiens

<400> 313
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 ccgtgctgct ggccttggt gtgctgtggt ctgtagtgt caccggtgcc 150
 gtgtctctcc tgaaccacgc ccacgcgccg ggcaaggcgc cccacactgt 200
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 gggcgagacg ctgcacctc agcatcotca ttgacccgcg ctgccccgac 300
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<210> 314

<211> 461

<212> PRT

<213> Homo sapiens

<400> 314

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				20					25					30
Val	Leu	Cys	Thr	Val	Leu	Leu	Ala	Leu	Ala	Val	Leu	Leu	Ala	Val
				35					40					45
Ala	Val	Thr	Gly	Ala	Val	Leu	Phe	Leu	Asn	His	Ala	His	Ala	Pro
				50					55					60
Gly	Thr	Ala	Pro	Pro	Pro	Val	Val	Ser	Thr	Gly	Ala	Ala	Ser	Ala
				65					70					75
Asn	Ser	Ala	Leu	Val	Thr	Val	Glu	Arg	Ala	Asp	Ser	Ser	His	Leu
				80					85					90
Ser	Ile	Leu	Ile	Asp	Pro	Arg	Cys	Pro	Asp	Leu	Thr	Asp	Ser	Phe
				95					100					105

Ala Arg Leu Glu Ser Ala Gln Ala Ser Val Leu Gln Ala Leu Thr	110	115	120
Glu His Gln Ala Gln Pro Arg Leu Val Gly Asp Gln Glu Gln Glu	125	130	135
Leu Leu Asp Thr Leu Ala Asp Gln Leu Pro Arg Leu Leu Ala Arg	140	145	150
Ala Ser Glu Leu Gln Thr Glu Cys Met Gly Leu Arg Lys Gly His	155	160	165
Gly Thr Leu Gly Gln Gly Leu Ser Ala Leu Gln Ser Glu Gln Gly	170	175	180
Arg Leu Ile Gln Leu Leu Ser Glu Ser Gln Gly His Met Ala His	185	190	195
Leu Val Asn Ser Val Ser Asp Ile Leu Asp Ala Leu Gln Arg Asp	200	205	210
Arg Gly Leu Gly Arg Pro Arg Asn Lys Ala Asp Leu Gln Arg Ala	215	220	225
Pro Ala Arg Gly Thr Arg Pro Arg Gly Cys Ala Thr Gly Ser Arg	230	235	240
Pro Arg Asp Cys Leu Asp Val Leu Leu Ser Gly Gln Gln Asp Asp	245	250	255
Gly Val Tyr Ser Val Phe Pro Thr His Tyr Pro Ala Gly Phe Gln	260	265	270
Val Tyr Cys Asp Met Arg Thr Asp Gly Gly Gly Trp Thr Val Phe	275	280	285
Gln Arg Arg Glu Asp Gly Ser Val Asn Phe Phe Arg Gly Trp Asp	290	295	300
Ala Tyr Arg Asp Gly Phe Gly Arg Leu Thr Gly Glu His Trp Leu	305	310	315
Gly Leu Lys Arg Ile His Ala Leu Thr Thr Gln Ala Ala Tyr Glu	320	325	330
Leu His Val Asp Leu Glu Asp Phe Glu Asn Gly Thr Ala Tyr Ala	335	340	345
Arg Tyr Gly Ser Phe Gly Val Gly Leu Phe Ser Val Asp Pro Glu	350	355	360
Glu Asp Gly Tyr Pro Leu Thr Val Ala Asp Tyr Ser Gly Thr Ala	365	370	375
Gly Asp Ser Leu Leu Lys His Ser Gly Met Arg Phe Thr Thr Lys	380	385	390
Asp Arg Asp Ser Asp His Ser Glu Asn Asn Cys Ala Ala Phe Tyr	395	400	405
Arg Gly Ala Trp Trp Tyr Arg Asn Cys His Thr Ser Asn Leu Asn	410	415	420

Gly Gln Tyr Leu Arg Gly Ala His Ala Ser Tyr Ala Asp Gly Val
425 430 435

Glu Trp Ser Ser Trp Thr Gly Trp Gln Tyr Ser Leu Lys Phe Ser
440 445 450

Glu Met Lys Ile Arg Pro Val Arg Glu Asp Arg
455 460

<210> 315

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 315

cacacgtcca acctcaatgg gcag 24

<210> 316

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 316

gaccagcagg gccaaaggaca agg 23

<210> 317

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 317

gttctctgag atgaagatcc ggccggctccg ggagtaccgc ttag 44

<210> 318

<211> 1841

<212> DNA

<213> Homo sapiens

<400> 318

gcagtcagag acttcccctg ccctcgcctg ggaaagaaca ttaggaatgc 50

cttttagtgc cttgcttctt gaactagctc acagtagccc ggcggccagg 100

ggcaatccga ccacatttca ctctaccgc tgtaggaatc cagatgcagg 150

caaagtacag cagcacgagg gacatgctgg atgatgatgg ggacaccacc 200

atgagcctgc attctcaagc ctctgccaca actcggcatc cagagccccg 250

gcgcacagag cacagggtct cctcttcaac gtggcgacca gtggccctga 300

ccctgctgac tttgtgcttg gtgctgctga tagggctggc agccctgggg 350

cttttgtttt ttcagtacta ccagctctcc aatactggtc aagacacat 400

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 actgaagatt taataataat aaatgtaaat actgtgaaaa a 1841

<210> 319

<211> 280

<212> PRT

<213> Homo sapiens

<400> 319

Met	Gln	Ala	Lys	Tyr	Ser	Ser	Thr	Arg	Asp	Met	Leu	Asp	Asp	Asp
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Gly	Asp	Thr	Thr	Met	Ser	Leu	His	Ser	Gln	Ala	Ser	Ala	Thr	Thr
				20					25					30
Arg	His	Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser
				35					40					45
Thr	Trp	Arg	Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val
				50					55					60
Leu	Leu	Ile	Gly	Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr
				65					70					75
Tyr	Gln	Leu	Ser	Asn	Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu
				80					85					90
Glu	Arg	Leu	Gly	Asn	Thr	Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val
				95					100					105
Gln	Asn	Ile	Lys	Leu	Ala	Gly	Ser	Leu	Gln	His	Val	Ala	Glu	Lys
				110					115					120
Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys	Ala	Gly	Ala	His	Arg	Cys	Ser
				125					130					135
Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His	Gly	Asp	Asn	Cys	Tyr	Gln
				140					145					150
Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp	Cys	Lys	Tyr	Phe	Cys
				155					160					165
Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn	Lys	Gln	Glu	Asp
				170					175					180
Leu	Glu	Phe	Ala	Ala	Ser	Gln	Ser	Tyr	Ser	Glu	Phe	Phe	Tyr	Ser
				185					190					195
Tyr	Trp	Thr	Gly	Leu	Leu	Arg	Pro	Asp	Ser	Gly	Lys	Ala	Trp	Leu
				200					205					210
Trp	Met	Asp	Gly	Thr	Pro	Phe	Thr	Ser	Glu	Leu	Phe	His	Ile	Ile
				215					220					225
Ile	Asp	Val	Thr	Ser	Pro	Arg	Ser	Arg	Asp	Cys	Val	Ala	Ile	Leu
				230					235					240
Asn	Gly	Met	Ile	Phe	Ser	Lys	Asp	Cys	Lys	Glu	Leu	Lys	Arg	Cys
				245					250					255
Val	Cys	Glu	Arg	Arg	Ala	Gly	Met	Val	Lys	Pro	Glu	Ser	Leu	His
				260					265					270
Val	Pro	Pro	Glu	Thr	Leu	Gly	Glu	Gly	Asp					
				275					280					

<210> 320

<211> 468

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> 59, 95, 149, 331, 364, 438, 446
 <223> unknown base

<400> 320
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 gggacatgnt ggatgatgat gggacaccac catgagcctg cattntcaag 100
 cttttgccac aattcggcat ccagagcccc ggcgcacaga gcacagggnt 150
 cctttttcaa cgtggcgacc agtggccctg accctgctga ctttgtgtt 200
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 ttaggaaata cgtccaaga gttgcaattt nttcaagtcc agaataataa 350
 gottgcagga agtntgcagc atgtggctga aaaactctgt cgtgagctgt 400
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 atacacacac cacttccc 468

<210> 321
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 321
 atgcaggcca agtacagcag cac 23

<210> 322
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<220>
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<400> 322
 catgtgacg acttcctgca agc 23

<210> 323
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 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 323
 ccacacagtc tctgcttctt ggg 23

<210> 324
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 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 324

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<210> 325

<211> 2988

<212> DNA

<213> Homo sapiens

<400> 325

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gctccctgcc ttttaataaac tggccaagtg tggaaaaa 2988

<210> 326
<211> 775
<212> PRT
<213> Homo sapiens

<400> 326
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20 25 30
Val Thr Trp Val Glu Glu Pro Cys Gly Pro Gly Pro Pro Gln Pro
35 40 45
Gly Asp Ser Glu Leu Pro Pro Arg Gly Asn Thr Asn Ala Ala Arg
50 55 60
Arg Pro Asn Ser Val Gln Pro Gly Ala Glu Arg Glu Lys Pro Gly
65 70 75
Ala Gly Glu Gly Ala Gly Glu Asn Trp Glu Pro Arg Val Leu Pro
80 85 90
Tyr His Pro Ala Gln Pro Gly Gln Ala Ala Lys Lys Ala Val Arg
95 100 105
Thr Arg Tyr Ile Ser Thr Glu Leu Gly Ile Arg Gln Arg Leu Leu
110 115 120
Val Ala Val Leu Thr Ser Gln Thr Thr Leu Pro Thr Leu Gly Val
125 130 135
Ala Val Asn Arg Thr Leu Gly His Arg Leu Glu Arg Val Val Phe
140 145 150
Leu Thr Gly Ala Arg Gly Arg Arg Ala Pro Pro Gly Met Ala Val
155 160 165
Val Thr Leu Gly Glu Glu Arg Pro Ile Gly His Leu His Leu Ala
170 175 180
Leu Arg His Leu Leu Glu Gln His Gly Asp Asp Phe Asp Trp Phe
185 190 195
Phe Leu Val Pro Asp Thr Thr Tyr Thr Glu Ala His Gly Leu Ala
200 205 210
Arg Leu Thr Gly His Leu Ser Leu Ala Ser Ala Ala His Leu Tyr
215 220 225
Leu Gly Arg Pro Gln Asp Phe Ile Gly Gly Glu Pro Thr Pro Gly
230 235 240
Arg Tyr Cys His Gly Gly Phe Gly Val Leu Leu Ser Arg Met Leu
245 250 255
Leu Gln Gln Leu Arg Pro His Leu Glu Gly Cys Arg Asn Asp Ile
260 265 270

Val Ser Ala Arg	Pro Asp Glu Trp Leu Gly Arg Cys Ile Leu Asp	275	280	285
Ala Thr Gly Val	Gly Cys Thr Gly Asp His Glu Gly Val His Tyr	290	295	300
Ser His Leu Glu	Leu Ser Pro Gly Glu Pro Val Gln Glu Gly Asp	305	310	315
Pro His Phe Arg	Ser Ala Leu Thr Ala His Pro Val Arg Asp Pro	320	325	330
Val His Met Tyr	Gln Leu His Lys Ala Phe Ala Arg Ala Glu Leu	335	340	345
Glu Arg Thr Tyr	Gln Glu Ile Gln Glu Leu Gln Trp Glu Ile Gln	350	355	360
Asn Thr Ser His	Leu Ala Val Asp Gly Asp Arg Ala Ala Ala Trp	365	370	375
Pro Val Gly Ile	Pro Ala Pro Ser Arg Pro Ala Ser Arg Phe Glu	380	385	390
Val Leu Arg Trp	Asp Tyr Phe Thr Glu Gln His Ala Phe Ser Cys	395	400	405
Ala Asp Gly Ser	Pro Arg Cys Pro Leu Arg Gly Ala Asp Arg Ala	410	415	420
Asp Val Ala Asp	Val Leu Gly Thr Ala Leu Glu Glu Leu Asn Arg	425	430	435
Arg Tyr His Pro	Ala Leu Arg Leu Gln Lys Gln Gln Leu Val Asn	440	445	450
Gly Tyr Arg Arg	Phe Asp Pro Ala Arg Gly Met Glu Tyr Thr Leu	455	460	465
Asp Leu Gln Leu	Glu Ala Leu Thr Pro Gln Gly Gly Arg Arg Pro	470	475	480
Leu Thr Arg Arg	Val Gln Leu Leu Arg Pro Leu Ser Arg Val Glu	485	490	495
Ile Leu Pro Val	Pro Tyr Val Thr Glu Ala Ser Arg Leu Thr Val	500	505	510
Leu Leu Pro Leu	Ala Ala Ala Glu Arg Asp Leu Ala Pro Gly Phe	515	520	525
Leu Glu Ala Phe	Ala Thr Ala Ala Leu Glu Pro Gly Asp Ala Ala	530	535	540
Ala Ala Leu Thr	Leu Leu Leu Tyr Glu Pro Arg Gln Ala Gln	545	550	555
Arg Val Ala His	Ala Asp Val Phe Ala Pro Val Lys Ala His Val	560	565	570
Ala Glu Leu Glu	Arg Arg Phe Pro Gly Ala Arg Val Pro Trp Leu	575	580	585

Ser Val Gln Thr	Ala Ala Pro Ser Pro	Leu Arg Leu Met Asp	Leu
590		595	600
Leu Ser Lys Lys	His Pro Leu Asp Thr	Leu Phe Leu Leu Ala	Gly
605		610	615
Pro Asp Thr Val	Leu Thr Pro Asp Phe	Leu Asn Arg Cys Arg	Met
620		625	630
His Ala Ile Ser	Gly Trp Gln Ala Phe	Phe Pro Met His Phe	Gln
635		640	645
Ala Phe His Pro	Gly Val Ala Pro Pro	Gln Gly Pro Gly Pro	Pro
650		655	660
Glu Leu Gly Arg	Asp Thr Gly Arg Phe	Asp Arg Gln Ala Ala	Ser
665		670	675
Glu Ala Cys Phe	Tyr Asn Ser Asp Tyr	Val Ala Ala Arg Gly	Arg
680		685	690
Leu Ala Ala Ala	Ser Glu Gln Glu Glu	Glu Leu Leu Glu Ser	Leu
695		700	705
Asp Val Tyr Glu	Leu Phe Leu His Phe	Ser Ser Leu His Val	Leu
710		715	720
Arg Ala Val Glu	Pro Ala Leu Leu Gln	Arg Tyr Arg Ala Gln	Thr
725		730	735
Cys Ser Ala Arg	Leu Ser Glu Asp Leu	Tyr His Arg Cys Leu	Gln
740		745	750
Ser Val Leu Glu	Gly Leu Gly Ser Arg	Thr Gln Leu Ala Met	Leu
755		760	765
Leu Phe Glu Gln	Glu Gln Gly Asn Ser	Thr	
770		775	

<210> 327

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 327

tggaaggctg ccgcaacgac aatc 24

<210> 328

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 328

ctgatgtggc cgaatgtctg 20

<210> 329

<211> 20

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 329
 atggctcagt gtgcagacag 20

 <210> 330
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 330
 gcatgctgct ccgtgaagta gtcc 24

 <210> 331
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 331
 atgcatggga aagaaggcct gccc 24

 <210> 332
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 332
 tgcactggtg accacgaggg ggtgcactat agccatctgg agctgag 47

 <210> 333
 <211> 1095
 <212> DNA
 <213> Homo sapiens

 <400> 333
 gctctggccg gccccggcga ttggtcaccg cccgctaggg gacagccctg 50
 gcctcctctg attggcaagc gctggccacc tcccacacc ccttgogaac 100
 gctcccctag tggagaaaag gagtagctat tagccaattc ggcagggcc 150
 gctttttaga agcttgattt ctttgaaga tgaaagacta gcggaagctc 200
 tgctcttttc ccagtgggc gagggaaact ggggagattg gctgggaact 250
 gtatccacc aaatgtcacc gatttcttc tatgcaggaa atgagcagac 300
 ccatcaataa gaaatttctc agcctggccg aaaatggttg gccccaacgaa 350
 gccacgacaa ctggaggcaa agagggttgc tcaacgcccc gcctcattgg 400

aaaaccaa at cagatctggg acctatatag cgtggcggag gcggggcgat 450
 gattgtgcgc ctgcaccca ctgcagctgc gcacagtcgc atttctttcc 500
 ccgcccctga gacctgcag caccatctgt catggcggtt gggctgtttg 550
 gtttgagcgc togcctgttt ttggcggcag cggcgacgag agggctcccg 600
 gcgcgccgag tccgtgtgga atctagcttc tccaggactg tggctgcccc 650
 gtccgctgtg gcgggaaagc ggccccaga accgaccaca ccgtggcaag 700
 aggaccacga acccgaggac gaaaacttgt atgagaagaa ccagactcc 750
 catggttatg acaaggaccc cgttttggac gtctggaaca tgcgacttgt 800
 cttctctctt ggctcttcca tcatcctggt ccttggcagc accttgtgtg 850
 cctatctgcc tgactacagg atgaaagagt ggtcccgccg cgaagctgag 900
 aggcttgtga aataccgaga ggccaatggc cttcccatca tggaatccaa 950
 ctgcttcgac ccagcaaga tccagctgcc agaggatgag tgaccagttg 1000
 ctaagtgggg ctcaagaagc accgccttcc ccacccccct cctgcattc 1050
 tgacctcttc tcagagcacc taattaaagg ggctgaaagt ctgaa 1095

<210> 334

<211> 153

<212> PRT

<213> Homo sapiens

<400> 334

Met	Ala	Ala	Gly	Leu	Phe	Gly	Leu	Ser	Ala	Arg	Arg	Leu	Leu	Ala
1				5					10					15
Ala	Ala	Ala	Thr	Arg	Gly	Leu	Pro	Ala	Ala	Arg	Val	Arg	Trp	Glu
			20						25					30
Ser	Ser	Phe	Ser	Arg	Thr	Val	Val	Ala	Pro	Ser	Ala	Val	Ala	Gly
			35						40					45
Lys	Arg	Pro	Pro	Glu	Pro	Thr	Thr	Pro	Trp	Gln	Glu	Asp	Pro	Glu
			50						55					60
Pro	Glu	Asp	Glu	Asn	Leu	Tyr	Glu	Lys	Asn	Pro	Asp	Ser	His	Gly
			65						70					75
Tyr	Asp	Lys	Asp	Pro	Val	Leu	Asp	Val	Trp	Asn	Met	Arg	Leu	Val
			80						85					90
Phe	Phe	Phe	Gly	Val	Ser	Ile	Ile	Leu	Val	Leu	Gly	Ser	Thr	Phe
			95						100					105
Val	Ala	Tyr	Leu	Pro	Asp	Tyr	Arg	Met	Lys	Glu	Trp	Ser	Arg	Arg
			110						115					120
Glu	Ala	Glu	Arg	Leu	Val	Lys	Tyr	Arg	Glu	Ala	Asn	Gly	Leu	Pro
			125						130					135
Ile	Met	Glu	Ser	Asn	Cys	Phe	Asp	Pro	Ser	Lys	Ile	Gln	Leu	Pro
			140						145					150

Glu Asp Glu

<210> 335
<211> 442
<212> DNA
<213> Homo sapiens

<400> 335
ggcggctggg ctgttttggt tgagcgctcg cgcctctttg gcggcagcgg 50
cgacgcgagg gctcccggcc gcccgcgctc gctgggaatc tagcttctcc 100
aggactgtgg tcgccccgtc cgctgtggcg ggaaagcggc cccagaacc 150
gaccacaccg tggcaagagg acccagaacc cgaggacgaa aacttgtatg 200
agaagaaccc agactcccat ggttatgaca aggaccccg tttggacgtc 250
tggaacatgc gacttgtctt ctcttttggc gtctccatca tcctggtcct 300
tggcagcacc tttgtggcct atctgcctga ctacaggatg aaagagtgg 350
ccgcgcgca agctgagagg cttgtgaaat accgagaggc caatggcctt 400
cccatcatgg aatccaactg ctctgacccc agcaagatcc ag 442

<210> 336
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 336
ctgagaccct gcagcaccat ctg 23

<210> 337
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 337
ggtgcttctt gagcccaact tagc 24

<210> 338
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 338
aatctagctt ctccaggact gtggtcgccc cgtccgctgt 40

<210> 339
<211> 2162
<212> DNA

<213> Homo sapiens

<400> 339

gcggcggtcta tgccgcttgc tctgtctgtc ctgttgtctc tggggcccg 50
cggttggtgc ctgtcagaac cccacgcga cagcctgcgg gaggaacttg 100
tcacacccc gctgccttc ggggacgtag ccgccacatt ccagttccgc 150
acgcgctggg attcggagct tcagcgggaa ggagtgtccc attacaggct 200
ctttcccaaa gccctggggc agctgatctc caagtattct ctacgggagc 250
tgcacctgtc attcacaaa ggcttttgga ggaccgata ctgggggccca 300
cccttcctgc aggcccatc aggtgcagag ctgtgggtct ggttccaaga 350
cactgtcact gatgtggata aatcttgga ggagctcagt aatgtcctct 400
cagggatctt ctgcgcctct ctcaacttca tcgactccac caacacagtc 450
actccactg cctccttcaa acccctgggt ctggccaatg aactgacca 500
ctactttctg cgctatgctg tgctgcccg ggaggtggto tgcaccgaaa 550
acctacccc ctggaagaag ctcttgccct gtagttccaa ggcaggctc 600
tctgtgtgc tgaaggcaga togcttgctc cacaccagct accaactccc 650
ggcagtgcat atccgccctg tttgcagaaa tgcacgctgt actagcatct 700
cctgggagct gaggcagacc ctgtcagttg tatttgatgc ctctcatcag 750
gggcagggaa agaaagactg gtccctcttc cggatgttct ccogaacct 800
cacggagccc tgcccccctg ctccagagag ccgagtctat gtggacatca 850
ccactacaa ccaggacaac gagacattag aggtgcaccc acccccgacc 900
actacatata aggacgtcat cctaggcact cggaagacct atgccatcta 950
tgacttgctt gacacogcca tgatcaacaa ctctcgaaac ctcaacatcc 1000
agctcaagtg gaagagacct ccagagaatg agggccccc agtgccttc 1050
ctgcattccc agcgggtacgt gagtggctat gggctgcaga agggggagct 1100
gagcacactg ctgtacaaca cccaccata ccgggccttc ccggtgtgc 1150
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tgcccaggac cggtcgcaac ccaacctct ggagatgctg attcagctgc 1300
cggccaactc agtcaccaag gtttccatcc agtttgagcg ggcgtgctg 1350
aagtggaccg agtacacgc agatcctaac catggcttct atgtcagccc 1400
atctgtctc agcgccttg tgcccagcat ggtagcagcc aagccagtgg 1450
actgggaaga gagtccctc tcaacagcc tgttcccagt ctctgatggc 1500

Ala Ser Phe Lys	Pro Leu Gly Leu Ala	Asn Asp Thr Asp His Tyr
155		165
Phe Leu Arg Tyr	Ala Val Leu Pro Arg	Glu Val Val Cys Thr Glu
170		175 180
Asn Leu Thr Pro	Trp Lys Lys Leu Leu	Pro Cys Ser Ser Lys Ala
185		190 195
Gly Leu Ser Val	Leu Leu Lys Ala Asp	Arg Leu Phe His Thr Ser
200		205 210
Tyr His Ser Gln	Ala Val His Ile Arg	Pro Val Cys Arg Asn Ala
215		220 225
Arg Cys Thr Ser	Ile Ser Trp Glu Leu	Arg Gln Thr Leu Ser Val
230		235 240
Val Phe Asp Ala	Phe Ile Thr Gly Gln	Gly Lys Lys Asp Trp Ser
245		250 255
Leu Phe Arg Met	Phe Ser Arg Thr Leu	Thr Glu Pro Cys Pro Leu
260		265 270
Ala Ser Glu Ser	Arg Val Tyr Val Asp	Ile Thr Thr Tyr Asn Gln
275		280 285
Asp Asn Glu Thr	Leu Glu Val His Pro	Pro Pro Thr Thr Thr Tyr
290		295 300
Gln Asp Val Ile	Leu Gly Thr Arg Lys	Thr Tyr Ala Ile Tyr Asp
305		310 315
Leu Leu Asp Thr	Ala Met Ile Asn Asn	Ser Arg Asn Leu Asn Ile
320		325 330
Gln Leu Lys Trp	Lys Arg Pro Pro Glu	Asn Glu Ala Pro Pro Val
335		340 345
Pro Phe Leu His	Ala Gln Arg Tyr Val	Ser Gly Tyr Gly Leu Gln
350		355 360
Lys Gly Glu Leu	Ser Thr Leu Leu Tyr	Asn Thr His Pro Tyr Arg
365		370 375
Ala Phe Pro Val	Leu Leu Leu Asp Thr	Val Pro Trp Tyr Leu Arg
380		385 390
Leu Tyr Val His	Thr Leu Thr Ile Thr	Ser Lys Gly Lys Glu Asn
395		400 405
Lys Pro Ser Tyr	Ile His Tyr Gln Pro	Ala Gln Asp Arg Leu Gln
410		415 420
Pro His Leu Leu	Glu Met Leu Ile Gln	Leu Pro Ala Asn Ser Val
425		430 435
Thr Lys Val Ser	Ile Gln Phe Glu Arg	Ala Leu Leu Lys Trp Thr
440		445 450
Glu Tyr Thr Pro	Asp Pro Asn His Gly	Phe Tyr Val Ser Pro Ser
455		460 465

Val	Leu	Ser	Ala	Leu	Val	Pro	Ser	Met	Val	Ala	Ala	Lys	Pro	Val
				470					475					480
Asp	Trp	Glu	Glu	Ser	Pro	Leu	Phe	Asn	Ser	Leu	Phe	Pro	Val	Ser
				485					490					495
Asp	Gly	Ser	Asn	Tyr	Phe	Val	Arg	Leu	Tyr	Thr	Glu	Pro	Leu	Leu
				500					505					510
Val	Asn	Leu	Pro	Thr	Pro	Asp	Phe	Ser	Met	Pro	Tyr	Asn	Val	Ile
				515					520					525
Cys	Leu	Thr	Cys	Thr	Val	Val	Ala	Val	Cys	Tyr	Gly	Ser	Phe	Tyr
				530					535					540
Asn	Leu	Leu	Thr	Arg	Thr	Phe	His	Ile	Glu	Glu	Pro	Arg	Thr	Gly
				545					550					555
Gly	Leu	Ala	Lys	Arg	Leu	Ala	Asn	Leu	Ile	Arg	Arg	Ala	Arg	Gly
				560					565					570

Val Pro Pro Leu

<210> 341
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 341
 tggacaccgt accctggtat ctgc 24

<210> 342
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> Artificial Sequence
 <222> 1-24
 <223> Synthetic oligonucleotide probe

<400> 342
 ccaactctga ggagagcaag tggc 24

<210> 343
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 343
 tgtatgtgca caccctcacc atcacctcca agggcaagga gaac 44

<210> 344
 <211> 762
 <212> DNA
 <213> Homo sapiens

<400> 344
 caacatggg tccagcagct tcttggtcct catggtgtct ctggttcttg 50
 tgaccctggt ggctgtggaa ggagttaaag agggataga gaaagcagg 100
 gtttgccag ctgacaacgt acgtgcttc aagtcggatc ctccccagt 150
 tcacacagac caggactgtc tgggggaaag gaagtgtgt tacctgact 200
 gtggctcaa gtgtgtgatt cctgtgaag aactggaaga aggaggaaa 250
 aaggatgaag atgtgtcaag gccataacct gagccaggat gggaggcca 300
 gtgtccaggc tcctcctcta ccagggtgcc tcagaaatga tgctgggtcc 350
 ttctacctc tgggggtcac tctcaattgg cacctgcccc tgagggtcct 400
 gagacttga atatggaaga agcaataccc aaccccacca aagaaaacct 450
 gagcttgaag tccttttccc caaaaagagg gaagagtcac aaaaagtcca 500
 gacccaggg acggtacttt cctctctac ctggtgtcc tcctaattgc 550
 tcatgaatgg acccctcatg aatgaaacca gtgcccttat aagagacccc 600
 aaagagctgc ctgccccttc tgcaatgtgt gatcacagct agaaggcact 650
 gtcagagaag agaaactggt cctcaccaga tgctgaatct gctggtgcct 700
 tgatcttga cttcccagcc tctagaactg taagaaataa atatttctg 750
 ttataatcc aa 762

<210> 345
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 345
 Met Gly Ser Ser Ser Phe Leu Val Leu Met Val Ser Leu Val Leu
 1 5 10 15
 Val Thr Leu Val Ala Val Glu Gly Val Lys Glu Gly Ile Glu Lys
 20 25 30
 Ala Gly Val Cys Pro Ala Asp Asn Val Arg Cys Phe Lys Ser Asp
 35 40 45
 Pro Pro Gln Cys His Thr Asp Gln Asp Cys Leu Gly Glu Arg Lys
 50 55 60
 Cys Cys Tyr Leu His Cys Gly Phe Lys Cys Val Ile Pro Val Lys
 65 70 75
 Glu Leu Glu Glu Gly Gly Asn Lys Asp Glu Asp Val Ser Arg Pro
 80 85 90
 Tyr Pro Glu Pro Gly Trp Glu Ala Lys Cys Pro Gly Ser Ser Ser
 95 100 105
 Thr Arg Cys Pro Gln Lys
 110

<210> 346
<211> 2528
<212> DNA
<213> Homo sapiens

<400> 346
aaactcagca cttgccggag tggctcattg ttaagacaaa ggggtgtcac 50
ttcttgcca ggaacctga gcggtgagac tcccagctgc ctacatcaag 100
gccccaggac atgcagaacc ttctctaga acccgaccca ccaccatgag 150
gtcttgctg tggagatgca ggcacctgag ccaaggcgct cagtggctct 200
tgcttctggc tgtctggtc ttctttctct tcgccttgcc ctcttttatt 250
aaggagcctc aaacaaagcc ttccaggcat caacgcacag agaacattaa 300
agaaaggctc ctacagtccc tggcaaagcc taagtcccag gcccccacaa 350
gggcgaggag gacaaccatc tatgcagagc cagcgccaga gaacaatgcc 400
ctcaacacac aaaccagcc caaggccac accaccggag acagaggaaa 450
ggaggccaac caggcacccg cggaggagca ggacaagggt ccccacacag 500
cacagagggc agcatggaag agcccagaaa aagagaaaac catggtgaac 550
acactgtcac ccagagggca agatgcaggg atggcctctg gcaggacaga 600
ggcacaatca tgaagagcc aggcacaaa gacgacccaa ggaatgggg 650
gccagaccag gaagctgag gctccaggc cgggtgtcaga gaagcaccag 700
ggcaaagcgg caaccacagc caagacgctc attccaaaaa gtcagcacag 750
aatgtggct cccacaggag cagtgtcaac aaggacgaga cagaaaggag 800
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ccccctgccc ctttccagag cccacagagc cagagaaacc aaagactgaa 900
ggccgccaac ttcaaactg agcctcggtg ggattttgag gaaaaataca 950
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aacactttgc accaccctt ggcttcatg agctcaacta ctcttgggtg 1150
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ggccagcctc cccgctggga gcctccggtg catoacctgt gccgtgtgtg 1250
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cacgactacg tgttccgatt gagcggagct ctcattnaag gctacgaaca 1350
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gggaaggacg tccgctactt gcacttcctg gaaggcaccg gggactatga 1500
 gtggctggaa gcactgctta tgaatcagac ggtgatgtca aaaacacctt 1550
 tctggttcag gcacagaccg caggaagcctt ttcgggaagc cctgcacatg 1600
 gacaggtacc tgttgctgca ccagactttt ctccgatata tgaagaacag 1650
 gtttctgagg tctaagaccg tggatggtgc ccaactggagg atataccgcc 1700
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 gtgagtgtct atggcttcat cactgagggc catgagcgct tttctgatca 1800
 ctactatgat acatcatgga agcggctgat cttttacata aacctgact 1850
 tcaagctgga gagagaagtc tggaaagcggc tacacgatga agggataatc 1900
 cggtgttacc agcgtctctg tcccggaaact gccaaagcca agaactgacc 1950
 ggggccaggg ctgccatggt ctcccttgct gctccaaggc acaggatata 2000
 gtgggaatct tgagactctt tggccatttc ccatggctca gactaaagctc 2050
 caagcccttc aggagttcca agggaaacact tgaacctagg acaagactct 2100
 ctcaagatgg caaatggcta attgaggttc tgaagttctt cagtacattg 2150
 ctgtaggctc tgaggccagg gatttttaat taaatggggt gatgggtggc 2200
 caataccaca attctgtctg aaaaacactc ttccagtcca aaagcttctt 2250
 gatacagaaa aaagagcctg gatttacaga aacatataga tctggtttga 2300
 attccagatc gagtttacag ttgtgaaatc ttgaaggat tacttaactt 2350
 cactacagat tgtctagaag acctttctag gagttatctg attctagaag 2400
 ggtctatact tgtccttgct ttttagctat ttgacaactc tacgtgtgtg 2450
 agaaaactga taataatata aatgattgtt gtccatggaa aggcaataaa 2500
 atttctaca gtgaaaaaaa aaaaaaaa 2528

<210> 347
 <211> 600
 <212> PRT
 <213> Homo sapiens

<400> 347
 Met Arg Ser Cys Leu Trp Arg Cys Arg His Leu Ser Gln Gly Val
 1 5 10 15
 Gln Trp Ser Leu Leu Leu Ala Val Leu Val Phe Phe Leu Phe Ala
 20 25 30
 Leu Pro Ser Phe Ile Lys Glu Pro Gln Thr Lys Pro Ser Arg His
 35 40 45
 Gln Arg Thr Glu Asn Ile Lys Glu Arg Ser Leu Gln Ser Leu Ala
 50 55 60
 Lys Pro Lys Ser Gln Ala Pro Thr Arg Ala Arg Arg Thr Thr Ile

	65	70	75
Tyr Ala Glu Pro	Ala Pro Glu Asn Asn	Ala Leu Asn Thr	Gln Thr
	80	85	90
Gln Pro Lys Ala	His Thr Thr Gly Asp	Arg Gly Lys Glu Ala	Asn
	95	100	105
Gln Ala Pro Pro	Glu Glu Gln Asp Lys	Val Pro His Thr Ala	Gln
	110	115	120
Arg Ala Ala Trp	Lys Ser Pro Glu Lys	Glu Lys Thr Met Val	Asn
	125	130	135
Thr Leu Ser Pro	Arg Gly Gln Asp Ala	Gly Met Ala Ser Gly	Arg
	140	145	150
Thr Glu Ala Gln	Ser Trp Lys Ser Gln	Asp Thr Lys Thr Thr	Gln
	155	160	165
Gly Asn Gly Gly	Gln Thr Arg Lys Leu	Thr Ala Ser Arg Thr	Val
	170	175	180
Ser Glu Lys His	Gln Gly Lys Ala Ala	Thr Thr Ala Lys Thr	Leu
	185	190	195
Ile Pro Lys Ser	Gln His Arg Met Leu	Ala Pro Thr Gly Ala	Val
	200	205	210
Ser Thr Arg Thr	Arg Gln Lys Gly Val	Thr Thr Ala Val Ile	Pro
	215	220	225
Pro Lys Glu Lys	Lys Pro Gln Ala Thr	Pro Pro Pro Ala Pro	Phe
	230	235	240
Gln Ser Pro Thr	Thr Gln Arg Asn Gln	Arg Leu Lys Ala Ala	Asn
	245	250	255
Phe Lys Ser Glu	Pro Arg Trp Asp Phe	Glu Glu Lys Tyr Ser	Phe
	260	265	270
Glu Ile Gly Gly	Leu Gln Thr Thr Cys	Pro Asp Ser Val Lys	Ile
	275	280	285
Lys Ala Ser Lys	Ser Leu Trp Leu Gln	Lys Leu Phe Leu Pro	Asn
	290	295	300
Leu Thr Leu Phe	Leu Asp Ser Arg His	Phe Asn Gln Ser Glu	Trp
	305	310	315
Asp Arg Leu Glu	His Phe Ala Pro Pro	Phe Gly Phe Met Glu	Leu
	320	325	330
Asn Tyr Ser Leu	Val Gln Lys Val Val	Thr Arg Phe Pro Pro	Val
	335	340	345
Pro Gln Gln Gln	Leu Leu Leu Ala Ser	Leu Pro Ala Gly Ser	Leu
	350	355	360
Arg Cys Ile Thr	Cys Ala Val Val Gly	Asn Gly Gly Ile Leu	Asn
	365	370	375
Asn Ser His Met	Gly Gln Glu Ile Asp	Ser His Asp Tyr Val	Phe

	380		385		390
Arg Leu Ser Gly	Ala Leu Ile Lys Gly	Tyr Glu Gln Asp Val Gly			
	395	400			405
Thr Arg Thr Ser	Phe Tyr Gly Phe Thr	Ala Phe Ser Leu Thr Gln			
	410	415			420
Ser Leu Leu Ile	Leu Gly Asn Arg Gly	Phe Lys Asn Val Pro Leu			
	425	430			435
Gly Lys Asp Val	Arg Tyr Leu His Phe	Leu Glu Gly Thr Arg Asp			
	440	445			450
Tyr Glu Trp Leu	Glu Ala Leu Leu Met	Asn Gln Thr Val Met Ser			
	455	460			465
Lys Asn Leu Phe	Trp Phe Arg His Arg	Pro Gln Glu Ala Phe Arg			
	470	475			480
Glu Ala Leu His	Met Asp Arg Tyr Leu	Leu Leu His Pro Asp Phe			
	485	490			495
Leu Arg Tyr Met	Lys Asn Arg Phe Leu	Arg Ser Lys Thr Leu Asp			
	500	505			510
Gly Ala His Trp	Arg Ile Tyr Arg Pro	Thr Thr Gly Ala Leu Leu			
	515	520			525
Leu Leu Thr Ala	Leu Gln Leu Cys Asp	Gln Val Ser Ala Tyr Gly			
	530	535			540
Phe Ile Thr Glu	Gly His Glu Arg Phe	Ser Asp His Tyr Tyr Asp			
	545	550			555
Thr Ser Trp Lys	Arg Leu Ile Phe Tyr	Ile Asn His Asp Phe Lys			
	560	565			570
Leu Glu Arg Glu	Val Trp Lys Arg Leu	His Asp Glu Gly Ile Ile			
	575	580			585
Arg Leu Tyr Gln	Arg Pro Gly Pro Gly	Thr Ala Lys Ala Lys Asn			
	590	595			600

<210> 348
 <211> 496
 <212> DNA
 <213> Homo sapiens

<400> 348
 cgatgcgcgg acccgggcac cccctcctcc tggggctgct gctgggtgctg 50
 gggccttcgc cggagcagcg agtggaaatt gttcctcgag atctgaggat 100
 gaaggacaag tttctaaaac accttacagg cctctttat tttagtccaa 150
 agtgcagcaa acacttccat agactttatc acaaacaccag agactgcacc 200
 attcctgcac actataaaaag atgcgccagg cttcttaccg ggctggctgt 250
 cagtccagtg tgcatggagg ataagtgagc agaccgtaca ggagcagcac 300
 accaggagcc atgagaatg ccttggaaac caacagggaa acagaactat 350

ctttatacac atccctcat ggacaagaga tttatttttg cagacagact 400
 cttccataag tcctttgagt ttgtatgtt gttgacagtt tgcagatata 450
 tattcgataa atcagtgtag ttgacagtg tatctgtcac ttattt 496

<210> 349
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 349
 Met Arg Gly Pro Gly His Pro Leu Leu Leu Gly Leu Leu Leu Val
 1 5 10 15
 Leu Gly Pro Ser Pro Glu Gln Arg Val Glu Ile Val Pro Arg Asp
 20 25 30
 Leu Arg Met Lys Asp Lys Phe Leu Lys His Leu Thr Gly Pro Leu
 35 40 45
 Tyr Phe Ser Pro Lys Cys Ser Lys His Phe His Arg Leu Tyr His
 50 55 60
 Asn Thr Arg Asp Cys Thr Ile Pro Ala Tyr Tyr Lys Arg Cys Ala
 65 70 75
 Arg Leu Leu Thr Arg Leu Ala Val Ser Pro Val Cys Met Glu Asp
 80 85 90
 Lys

<210> 350
 <211> 1141
 <212> DNA
 <213> Homo sapiens

<400> 350
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 ttctctggga ggcccgaccc cggccgcgcc cagccccacc catgccaccc 100
 gcggggctcc gcgcggccgc gccgctcacc gcaatcgctc tgttggtgct 150
 gggggctccc ctggtgctgg ccggcgagga ctgcctgtgg tacctggacc 200
 ggaatggctc ctggcatocg gggtttaact gcgagttctt cacctttctg 250
 tcggggacct gctaccatcg gtactgctgc agggacctga ccttcttat 300
 caccgagagg cagcagaagc actgcctggc cttoagcccc aagaccatag 350
 caggcatcgc ctacgctgtg atctcttttg ttgctgtggt tgccaccacc 400
 atctgctgct tctctgttc ctgttgctac ctgtaccgcc ggcgccagca 450
 gctccagagc ccatttgaag gccaggagat tccaatgaca ggcacccag 500
 tgcagccagt ataccatac cccaggacc ccaaagctgg ccctgcaccc 550
 ccacagcctg gcttcatgta cccacctagt ggtcctgctc cccaatatcc 600

actctaccca gctgggcccc cagtctacaa cctgcagct cctcctccct 650
 atatgccacc acagcctctt taccggggag cctgaggaac cagccatgtc 700
 tctgtgtccc ctctcagtgt gccaaccttg ggagatgccc tcatcctgta 750
 cctgcacatg gtcctggggg tggcaggagt cctccagcca ccaggcccca 800
 gaccaagcca agcctggggc cctactgggg acagagcccc agggaagtgg 850
 aacagagagct gaactagaac tatgaggggt tggggggagg gcttgaatt 900
 atgggctatt ttactgggg gcaagggagg gagatgacag cctgggtcac 950
 agtgctgttt ttcaaatagt ccctctgctc ccaagatccc agccaggaag 1000
 gctggggccc tactgtttgt cccctctggg ctgggggtgg gggaggagg 1050
 aggttcgctc agcagctggc agtagccctc ctctctggct gccccactgg 1100
 ccacatctct ggctgctag attaaagctg taaagacaaa a 1141

<210> 351

<211> 197

<212> PRT

<213> Homo sapiens

<400> 351

Met	Pro	Pro	Ala	Gly	Leu	Arg	Arg	Ala	Ala	Pro	Leu	Thr	Ala	Ile
1				5					10					15
Ala	Leu	Leu	Val	Leu	Gly	Ala	Pro	Leu	Val	Leu	Ala	Gly	Glu	Asp
			20						25					30
Cys	Leu	Trp	Tyr	Leu	Asp	Arg	Asn	Gly	Ser	Trp	His	Pro	Gly	Phe
			35						40					45
Asn	Cys	Glu	Phe	Phe	Thr	Phe	Cys	Cys	Gly	Thr	Cys	Tyr	His	Arg
			50						55					60
Tyr	Cys	Cys	Arg	Asp	Leu	Thr	Leu	Leu	Ile	Thr	Glu	Arg	Gln	Gln
			65						70					75
Lys	His	Cys	Leu	Ala	Phe	Ser	Pro	Lys	Thr	Ile	Ala	Gly	Ile	Ala
			80						85					90
Ser	Ala	Val	Ile	Leu	Phe	Val	Ala	Val	Val	Ala	Thr	Thr	Ile	Cys
			95						100					105
Cys	Phe	Leu	Cys	Ser	Cys	Cys	Tyr	Leu	Tyr	Arg	Arg	Arg	Gln	Gln
			110						115					120
Leu	Gln	Ser	Pro	Phe	Glu	Gly	Gln	Glu	Ile	Pro	Met	Thr	Gly	Ile
			125						130					135
Pro	Val	Gln	Pro	Val	Tyr	Pro	Tyr	Pro	Gln	Asp	Pro	Lys	Ala	Gly
			140						145					150
Pro	Ala	Pro	Pro	Gln	Pro	Gly	Phe	Met	Tyr	Pro	Pro	Ser	Gly	Pro
			155						160					165
Ala	Pro	Gln	Tyr	Pro	Leu	Tyr	Pro	Ala	Gly	Pro	Pro	Val	Tyr	Asn
			170						175					180

Pro Ala Ala Pro Pro Pro Tyr Met Pro Pro Gln Pro Ser Tyr Pro
185 190

Gly Ala

<210> 352
<211> 3226
<212> DNA
<213> Homo sapiens

<400> 352
gggggagcta ggcggcgcc agtgggtggtg gcggcgccgc aagggtgagg 50
gcggcccccag aaccccagggt aggtagagca agaagatggt gtttctgccc 100
ctcaaatggt cctctgcaac catgtcattt ctactttcct cactgttgcc 150
tctcttaact gtgtccactc cttcatggtg tcagagcact gaagcatctc 200
caaaacgtag tgatgggaca ccatttcctt ggaataaaat acgacttcct 250
gagtagctca tcccagttca ttatgatctc ttgatccatg caaaccttac 300
cacgtgacc ttctggggaa ccacgaaagt agaaatcaca gccagtcagc 350
ccaccagcac catcatcctg catagtcacc acctgcagat atctagggcc 400
accctcagga agggagctgg agagaggcta tcggaagaac cctgcaggt 450
cctggaacac cccctcagg agcaaattgc actgctggct cccgagcccc 500
tccttgtcgg gctcccgtac acagttgtca ttcactatgc tggcaatctt 550
tcggagactt tccacggatt ttacaaaagc acctacagaa ccaaggaagg 600
ggaactgagg atactagcat caacacaatt tgaaccact gcagctagaa 650
tggcctttcc ctgctttgat gaacctgcct tcaaagcaag tttctcaatc 700
aaaattagaa gagagccaag gcacctagcc atctccaata tggcatttgt 750
gaaatctgtg actgttgctg aaggactcat agaagaccat tttgatgtca 800
ctgtgaagat gagcacctat ctggtggcct tcatcatctc agatttttgag 850
tctgtcagca agataaccaa gagtggagtc aaggttttctg tttatgctgt 900
gccagacaag ataaatcaag cagattatgc actggatgct gcggtgactc 950
ttctagaatt ttatgaggat tatttcagca taccgatatc cctacccaaa 1000
caagatottg ctgctattcc cgactttcag totggtgcta tggaaaactg 1050
gggactgaca acatatagag aatctgctct gttgtttgat gcagaaaagt 1100
cttctgcac aagtaagctt ggcacacag tgactgtggc ccatgaactg 1150
gccaccaggt ggtttgggaa cctggtcact atggaatggt ggaatgatct 1200
ttggtataat gaaggatttg ccaaatttat ggagtttgtg tctgtcagtg 1250
tgacctatcc tgaactgaaa gttggagatt atttctttgg caaatgtttt 1300

gagcgaatgg aggtagatgc tttaaattcc tcacaccctg tgtotacacc 1350
 tgtggaaaat cctgctcaga tccgggagat gtttgatgat gtttcttatg 1400
 ataagggagc ttgtattctg aatatgctaa gggagtatct tagcgctgac 1450
 gcatttaaaa gtggtattgt acagtatctc cagaagcata gctataaaaa 1500
 tacaaaaaac gaggacctgt gggatagtat ggcaagtatt tgcctacag 1550
 atggtgtaaa agggatggat ggcttttgct ctagaagtoa acattcatct 1600
 tcactctcac attggcatca ggaaggggtg gatgtgaaaa ccatgatgaa 1650
 cacttgga ca tgcagaggg gttttccctc aataaccatc acagtggagg 1700
 ggaggaatgt acacatgaag caagagcact acatgaaggg ctctgacggc 1750
 gccccgaca ctgggtacct gtggcatgtt ccattgacat tcacaccag 1800
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 tcactctccc agaagaggtg gaatggatca aatttaatgt gggcatgaat 1900
 ggctattaca ttgtgcatta cgaggatgat ggatgggact cttgactgg 1950
 ccttttaaaa ggaacacaca cagcagtcag cagtaatgat cgggcaagtc 2000
 tcattaacaa tgcatttcag ctgctcagca ttgggaagct gtccattgaa 2050
 aaggccttg atttatccct gtacttgaaa catgaaactg aaattatgcc 2100
 cgtgtttcaa ggtttgaatg agctgattcc tatgtataag ttaattggaa 2150
 aaagagatat gaatgaagt gaaactcaat tcaaggcctt cctcatcagg 2200
 ctgctaaggg acctcattga taagcagaca tggacagacg agggctcagt 2250
 ctacagacaa atgctgcgga gtgaactact actcctcgcc tgtgtgcaca 2300
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 cgttgtgtcc aacagacaat tgaaccatt gaagaaaaca tcggttgat 2850
 ggataagaat ttgataaaa tcagagtgtg gctgcaaagt gaaaagcttg 2900

aacgtatgta aaaattcctc ccttgcccg ttcctgttat ctctaatac 2950
 caacattttg ttgagtgtat ttcaacta gagatggctg ttttggtccc 3000
 aactggagat acttttttcc cttcaactca ttttttgact atccctgtga 3050
 aaagaatagc tgttagtttt tcatgaatgg gctttttcat gaatgggcta 3100
 tgcctaccat gtgttttgtt catcacaggt gttgccctgc aacgtaaaac 3150
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 aaaaaaaaa aaaaaaaaa aaaaaa 3226

<210> 353
 <211> 941
 <212> PRT
 <213> Homo sapiens

<400> 353
 Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe
 1 5 10 15
 Leu Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser
 20 25 30
 Trp Cys Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr
 35 40 45
 Pro Phe Pro Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro
 50 55 60
 Val His Tyr Asp Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr
 65 70 75
 Phe Trp Gly Thr Thr Lys Val Glu Ile Thr Ala Ser Gln Pro Thr
 80 85 90
 Ser Thr Ile Ile Leu His Ser His His Leu Gln Ile Ser Arg Ala
 95 100 105
 Thr Leu Arg Lys Gly Ala Gly Glu Arg Leu Ser Glu Glu Pro Leu
 110 115 120
 Gln Val Leu Glu His Pro Pro Gln Glu Gln Ile Ala Leu Leu Ala
 125 130 135
 Pro Glu Pro Leu Leu Val Gly Leu Pro Tyr Thr Val Val Ile His
 140 145 150
 Tyr Ala Gly Asn Leu Ser Glu Thr Phe His Gly Phe Tyr Lys Ser
 155 160 165
 Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile Leu Ala Ser Thr
 170 175 180
 Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro Cys Phe Asp
 185 190 195
 Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg Arg Glu
 200 205 210
 Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser Val

Thr Val Ala Glu Gly Leu Ile Glu Asp	215	220	225
His Phe Asp Val Thr Val	230	235	240
Lys Met Ser Thr Tyr Leu Val Ala Phe	245	250	255
Ile Ile Ser Asp Phe Glu			
Ser Val Ser Lys Ile Thr Lys Ser Gly	260	265	270
Val Lys Val Ser Val Tyr			
Ala Val Pro Asp Lys Ile Asn Gln Ala	275	280	285
Asp Tyr Ala Leu Asp Ala			
Ala Val Thr Leu Leu Glu Phe Tyr Glu	290	295	300
Asp Tyr Phe Ser Ile Pro			
Tyr Pro Leu Pro Lys Gln Asp Leu Ala	305	310	315
Ala Ile Pro Asp Phe Gln			
Ser Gly Ala Met Glu Asn Trp Gly Leu	320	325	330
Thr Thr Tyr Arg Glu Ser			
Ala Leu Leu Phe Asp Ala Glu Lys Ser	335	340	345
Ser Ala Ser Ser Lys Leu			
Gly Ile Thr Val Thr Val Ala His Glu	350	355	360
Leu Ala His Gln Trp Phe			
Gly Asn Leu Val Thr Met Glu Trp Trp	365	370	375
Asn Asp Leu Trp Leu Asn			
Glu Gly Phe Ala Lys Phe Met Glu Phe	380	385	390
Val Ser Val Ser Val Thr			
His Pro Glu Leu Lys Val Gly Asp Tyr	395	400	405
Phe Phe Gly Lys Cys Phe			
Asp Ala Met Glu Val Asp Ala Leu Asn	410	415	420
Ser Ser His Pro Val Ser			
Thr Pro Val Glu Asn Pro Ala Gln Ile	425	430	435
Arg Glu Met Phe Asp Asp			
Val Ser Tyr Asp Lys Gly Ala Cys Ile	440	445	450
Leu Asn Met Leu Arg Glu			
Tyr Leu Ser Ala Asp Ala Phe Lys Ser	455	460	465
Gly Ile Val Gln Tyr Leu			
Gln Lys His Ser Tyr Lys Asn Thr Lys	470	475	480
Asn Glu Asp Leu Trp Asp			
Ser Met Ala Ser Ile Cys Pro Thr Asp	485	490	495
Gly Val Lys Gly Met Asp			
Gly Phe Cys Ser Arg Ser Gln His Ser	500	505	510
Ser Ser Ser Ser His Trp			
His Gln Glu Gly Val Asp Val Lys Thr	515	520	525
Met Met Asn Thr Trp Thr			
Leu Gln Arg Gly Phe Pro Leu Ile Thr			
Ile Thr Val Arg Gly Arg			

Asn Val His Met	Lys Gln Glu His Tyr	Met Lys Gly Ser Asp Gly	530	535	540
	545	550			555
Ala Pro Asp Thr	Gly Tyr Leu Trp His	Val Pro Leu Thr Phe Ile		565	570
	560				
Thr Ser Lys Ser	Asn Met Val His Arg	Phe Leu Leu Lys Thr Lys		580	585
	575				
Thr Asp Val Leu	Ile Leu Pro Glu Glu	Val Glu Trp Ile Lys Phe		595	600
	590				
Asn Val Gly Met	Asn Gly Tyr Tyr Ile	Val His Tyr Glu Asp Asp		610	615
	605				
Gly Trp Asp Ser	Leu Thr Gly Leu Leu	Lys Gly Thr His Thr Ala		625	630
	620				
Val Ser Ser Asn	Asp Arg Ala Ser Leu	Ile Asn Asn Ala Phe Gln		640	645
	635				
Leu Val Ser Ile	Gly Lys Leu Ser Ile	Glu Lys Ala Leu Asp Leu		655	660
	650				
Ser Leu Tyr Leu	Lys His Glu Thr Glu	Ile Met Pro Val Phe Gln		670	675
	665				
Gly Leu Asn Glu	Leu Ile Pro Met Tyr	Lys Leu Met Glu Lys Arg		685	690
	680				
Asp Met Asn Glu	Val Glu Thr Gln Phe	Lys Ala Phe Leu Ile Arg		700	705
	695				
Leu Leu Arg Asp	Leu Ile Asp Lys Gln	Thr Trp Thr Asp Glu Gly		715	720
	710				
Ser Val Ser Glu	Gln Met Leu Arg Ser	Glu Leu Leu Leu Leu Ala		730	735
	725				
Cys Val His Asn	Tyr Gln Pro Cys Val	Gln Arg Ala Glu Gly Tyr		745	750
	740				
Phe Arg Lys Trp	Lys Glu Ser Asn Gly	Asn Leu Ser Leu Pro Val		760	765
	755				
Asp Val Thr Leu	Ala Val Phe Ala Val	Gly Ala Gln Ser Thr Glu		775	780
	770				
Gly Trp Asp Phe	Leu Tyr Ser Lys Tyr	Gln Phe Ser Leu Ser Ser		790	795
	785				
Thr Glu Lys Ser	Gln Ile Glu Phe Ala	Leu Cys Arg Thr Gln Asn		805	810
	800				
Lys Glu Lys Leu	Gln Trp Leu Leu Asp	Glu Ser Phe Lys Gly Asp		820	825
	815				
Lys Ile Lys Thr	Gln Glu Phe Pro Gln	Ile Leu Thr Leu Ile Gly		835	840
	830				
Arg Asn Pro Val	Gly Tyr Pro Leu Ala	Trp Gln Phe Leu Arg Lys			

	845		850		855
Asn Trp Asn Lys	Leu Val Gln Lys Phe Glu Leu Gly Ser Ser Ser				
	860		865		870
Ile Ala His Met	Val Met Gly Thr Thr Asn Gln Phe Ser Thr Arg				
	875		880		885
Thr Arg Leu Glu	Glu Val Lys Gly Phe Phe Ser Ser Leu Lys Glu				
	890		895		900
Asn Gly Ser Gln	Leu Arg Cys Val Gln Gln Thr Ile Glu Thr Ile				
	905		910		915
Glu Glu Asn Ile	Gly Trp Met Asp Lys Asn Phe Asp Lys Ile Arg				
	920		925		930
Val Trp Leu Gln	Ser Glu Lys Leu Glu Arg Met				
	935		940		

<210> 354
 <211> 1587
 <212> DNA
 <213> Homo sapiens

<400> 354
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 tcctcctccc actgccagga gtgcaggcgc tgctctgcc gtttgggaca 100
 gttcagcatg tgtggaaggt gtccgacct ccccggaat ggaccacctaa 150
 gaacaccagc tgcgacagcg gcttgggggtg ccaggacacg ttgatgtcca 200
 ttgagagcgg accccaagt agcctggtgc tctccaaggg ctgcacggag 250
 gccaaaggacc aggagccccg cgtcactgag caccggatgg gccccggcct 300
 ctccctgac tcctacacct tcgtgtgcc ccaggaggac ttctgcaaca 350
 acctcgtaa ctccctcccc ctttggggcc cacagcccc agcagaccaca 400
 ggatccttga ggtgccaggt ctgctgtgtc atggaaggct gtcctggagg 450
 gacaacagaa gagatctgcc ccaaggggac cacactactg tatgatggcc 500
 tcctcaggct caggggagga ggcatcttct ccaatctgag agtccaggga 550
 tgcagcccc agccagggtg caacctgtc aatgggacac aggaaattgg 600
 gccctgggg atgactgaga actgcaatag gaaagatttt ctgacctgtc 650
 atcgggggac caccattatg acacacggaa acttggtctc agaaccact 700
 gattggacca catgaatac cgagatgtgc gagtgggggc aggtgtgtca 750
 ggagacgctg ctgctcatag atgtaggact cacatcaacc ctggtgggga 800
 caaaaggctg cagcactgtt ggggctcaaa attcccagaa gaccaccatc 850
 cactcagccc ctccctgggtg gcttgtggcc tectataccc acttctgtc 900
 ctccgacctg tgcaatagtg ccagcagcag cagcgttctg ctgaactccc 950

tcctctctca agctgcccc gtcccaggag accggcagtg tcctacctgt 1000
 gtgcagcccc ttggaacctg ttcaagtggc tccccccgaa tgacctgccc 1050
 cagggggcgc actcattgtt atgatgggta cattcatctc tcaggagggtg 1100
 ggctgtccac caaaatgagc attcagggtc gogtgggcca accttccagc 1150
 ttctgttgga accacaccag acaaatggg atcttctctg cgogtgagaa 1200
 gogtgatgtg cagcctcctg cctctcagca tgaggggagt ggggctgagg 1250
 gogtgagatc tctcacttg ggggtggggc tggcactggc cccagcgctg 1300
 tgggtggggag tggtttgccc ttctgtctaa ctctattacc cccacgattc 1350
 ttccagctg ctgaccacc acactcaacc tccctctgac ctcataacct 1400
 aatggccttg gacaccagat tctttcccat totgtccatg aatcatcttc 1450
 cccacacaca atcattcata tctactcacc taacagcaac actggggaga 1500
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 gctgcatgta tctgataata cagaccctgt cctttca 1587

<210> 355

<211> 437

<212> PRT

<213> Homo sapiens

<400> 355

Met	Ser	Ala	Val	Leu	Leu	Ala	Leu	Leu	Gly	Phe	Ile	Leu	Pro
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Leu	Pro	Gly	Val	Gln	Ala	Leu	Leu	Cys	Gln	Phe	Gly	Thr	Val
			20						25				30
His	Val	Trp	Lys	Val	Ser	Asp	Leu	Pro	Arg	Gln	Trp	Thr	Pro
			35						40				45
Asn	Thr	Ser	Cys	Asp	Ser	Gly	Leu	Gly	Cys	Gln	Asp	Thr	Leu
			50						55				60
Leu	Ile	Glu	Ser	Gly	Pro	Gln	Val	Ser	Leu	Val	Leu	Ser	Lys
			65						70				75
Cys	Thr	Glu	Ala	Lys	Asp	Gln	Glu	Pro	Arg	Val	Thr	Glu	His
			80						85				90
Met	Gly	Pro	Gly	Leu	Ser	Leu	Ile	Ser	Tyr	Thr	Phe	Val	Cys
			95						100				105
Gln	Glu	Asp	Phe	Cys	Asn	Asn	Leu	Val	Asn	Ser	Leu	Pro	Leu
			110						115				120
Ala	Pro	Gln	Pro	Pro	Ala	Asp	Pro	Gly	Ser	Leu	Arg	Cys	Pro
			125						130				135
Cys	Leu	Ser	Met	Glu	Gly	Cys	Leu	Glu	Gly	Thr	Thr	Glu	Glu
			140						145				150
Cys	Pro	Lys	Gly	Thr	Thr	His	Cys	Tyr	Asp	Gly	Leu	Leu	Arg
													Leu

	155		160		165
Arg Gly Gly Gly	Ile Phe Ser Asn Leu	Arg Val Gln Gly Cys Met			
	170	175			
Pro Gln Pro Gly	Cys Asn Leu Leu Asn	Gly Thr Gln Glu Ile Gly			
	185	190			
Pro Val Gly Met	Thr Glu Asn Cys Asn	Arg Lys Asp Phe Leu Thr			
	200	205			
Cys His Arg Gly	Thr Thr Ile Met Thr	His Gly Asn Leu Ala Gln			
	215	220			
Glu Pro Thr Asp	Trp Thr Thr Ser Asn	Thr Glu Met Cys Glu Val			
	230	235			
Gly Gln Val Cys	Gln Glu Thr Leu Leu	Leu Ile Asp Val Gly Leu			
	245	250			
Thr Ser Thr Leu	Val Gly Thr Lys Gly	Cys Ser Thr Val Gly Ala			
	260	265			
Gln Asn Ser Gln	Lys Thr Thr Ile His	Ser Ala Pro Pro Gly Val			
	275	280			
Leu Val Ala Ser	Tyr Thr His Phe Cys	Ser Ser Asp Leu Cys Asn			
	290	295			
Ser Ala Ser Ser	Ser Ser Val Leu Leu	Asn Ser Leu Pro Pro Gln			
	305	310			
Ala Ala Pro Val	Pro Gly Asp Arg Gln	Cys Pro Thr Cys Val Gln			
	320	325			
Pro Leu Gly Thr	Cys Ser Ser Gly Ser	Pro Arg Met Thr Cys Pro			
	335	340			
Arg Gly Ala Thr	His Cys Tyr Asp Gly	Tyr Ile His Leu Ser Gly			
	350	355			
Gly Gly Leu Ser	Thr Lys Met Ser Ile	Gln Gly Cys Val Ala Gln			
	365	370			
Pro Ser Ser Phe	Leu Leu Asn His Thr	Arg Gln Ile Gly Ile Phe			
	380	385			
Ser Ala Arg Glu	Lys Arg Asp Val Gln	Pro Pro Ala Ser Gln His			
	395	400			
Glu Gly Gly Gly	Ala Glu Gly Leu Glu	Ser Leu Thr Trp Gly Val			
	410	415			
Gly Leu Ala Leu	Ala Pro Ala Leu Trp	Trp Gly Val Val Cys Pro			
	425	430			
Ser Cys					

<210> 356
 <211> 1238
 <212> DNA
 <213> Homo sapiens

<400> 356
 gcgacgggca ggacgcccc ttgcctagc gcgtgctcag gagttggtgt 50
 cctgcctgcg ctcaggatga gggggaatct ggccttggtg ggcgttctaa 100
 tcagcctggc cttcctgtca ctgctgccat ctggacatcc tcagccggt 150
 ggcgatgacg cctgetctgt gcagatcctc gtccttggcc tcaaagggga 200
 tgcgggagag aaggggagaca aaggcgcccc cggaaggcct ggaagagtcg 250
 gccccacggg agaaaaagga gacatggggg acaaaggaca gaaaggcagt 300
 gtgggtcgtc atggaaaaat tgggtccatt ggctctaaa gtgagaaaag 350
 agattccggt gacataggac cccctggtcc taatggagaa ccaggcctcc 400
 catgtgagtg cagccagctg cgcaaggcca tcggggagat ggacaaccag 450
 gtctctcagc tgaccagcga gctcaagttc atcaagaatg ctgtcgccgg 500
 tgtgcgcgag acggagagca agatctacct gctggtgaag gaggagaagc 550
 gctacgcgga cggccagctg tctgtccagg gccgcggggg cacgctgagc 600
 atgcccgaag acgaggctgc caatggcctg atggccgcat acctggcgca 650
 agccggcctg gccctgtgtc tcctgcgcat caacgacctg gagaaggagg 700
 gcgcctctgt gtactctgac cactccccca tgcggacctt caacaagtgg 750
 cgagcggtg agcccaacaa tgctacgac gaggaggact gcgtggagat 800
 ggtggcctcg ggcggctgga acgacgtggc ctgccacacc acctgtact 850
 tcattgtgtg gtttgacaag gagaacatgt gagcctcagg ctgggctgctc 900
 ccattggggg ccccatatgt cctgcaggg ttggcaggga cagagcccag 950
 accatgggtc cagccaggga gctgtccctc tgtgaagggt ggaggtcac 1000
 tgagtagagg gctgttgtct aaactgagaa aatggcctat gcttaagagg 1050
 aaaaagaaag tgttctctgg gtgctgtctc tgaagaagca gagtttcatt 1100
 acctgtattg tagcccaaat gtcattatgt aattattacc cagaattgct 1150
 cttccataaa gcttgtgcct ttgtccaagc tatacaataa aatccttaag 1200
 tagtgcagta gttaagtcca aaaaaaaaa aaaaaaaaa 1238

<210> 357
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 357
 Met Arg Gly Asn Leu Ala Leu Val Gly Val Leu Ile Ser Leu Ala
 1 5 10 15
 Phe Leu Ser Leu Leu Pro Ser Gly His Pro Gln Pro Ala Gly Asp
 20 25 30

Asp	Ala	Cys	Ser	Val	Gln	Ile	Leu	Val	Pro	Gly	Leu	Lys	Gly	Asp	45
				35					40						
Ala	Gly	Glu	Lys	Gly	Asp	Lys	Gly	Ala	Pro	Gly	Arg	Pro	Gly	Arg	60
				50					55						
Val	Gly	Pro	Thr	Gly	Glu	Lys	Gly	Asp	Met	Gly	Asp	Lys	Gly	Gln	75
				65					70						
Lys	Gly	Ser	Val	Gly	Arg	His	Gly	Lys	Ile	Gly	Pro	Ile	Gly	Ser	90
				80					85						
Lys	Gly	Glu	Lys	Gly	Asp	Ser	Gly	Asp	Ile	Gly	Pro	Pro	Gly	Pro	105
				95					100						
Asn	Gly	Glu	Pro	Gly	Leu	Pro	Cys	Glu	Cys	Ser	Gln	Leu	Arg	Lys	120
				110					115						
Ala	Ile	Gly	Glu	Met	Asp	Asn	Gln	Val	Ser	Gln	Leu	Thr	Ser	Glu	135
				125					130						
Leu	Lys	Phe	Ile	Lys	Asn	Ala	Val	Ala	Gly	Val	Arg	Glu	Thr	Glu	150
				140					145						
Ser	Lys	Ile	Tyr	Leu	Leu	Val	Lys	Glu	Glu	Lys	Arg	Tyr	Ala	Asp	165
				155					160						
Ala	Gln	Leu	Ser	Cys	Gln	Gly	Arg	Gly	Gly	Thr	Leu	Ser	Met	Pro	180
				170					175						
Lys	Asp	Glu	Ala	Ala	Asn	Gly	Leu	Met	Ala	Ala	Tyr	Leu	Ala	Gln	195
				185					190						
Ala	Gly	Leu	Ala	Arg	Val	Phe	Ile	Gly	Ile	Asn	Asp	Leu	Glu	Lys	210
				200					205						
Glu	Gly	Ala	Phe	Val	Tyr	Ser	Asp	His	Ser	Pro	Met	Arg	Thr	Phe	225
				215					220						
Asn	Lys	Trp	Arg	Ser	Gly	Glu	Pro	Asn	Asn	Ala	Tyr	Asp	Glu	Glu	240
				230					235						
Asp	Cys	Val	Glu	Met	Val	Ala	Ser	Gly	Gly	Trp	Asn	Asp	Val	Ala	255
				245					250						
Cys	His	Thr	Thr	Met	Tyr	Phe	Met	Cys	Glu	Phe	Asp	Lys	Glu	Asn	270
				260					265						

Met

<210> 358
 <211> 972
 <212> DNA
 <213> Homo sapiens

<400> 358
 agtgactgca gccttcctag atcccctcca ctcggtttct ctctttgcag 50
 gagcaccggc agcaccagtg tgtgagggga gcaggcagcg gtcttagcca 100
 gttccttgat cctgccagac caccagccc ccggcacaga gctgctccac 150

Ser Thr Gly Lys Ser Ser Leu Gly Thr Glu Glu Gln Arg Pro Leu
125 130 135

<210> 360
<211> 1738
<212> DNA
<213> Homo sapiens

<400> 360
ggcgctctcc ggctgctcct attgagctgt ctgctcgtgt tgcgcgctgt 50
gcctgctgtg ccgcgctgt cgccgctgct accgcgtctg ctggacgcgg 100
gagacgcag cgagctgggt attggagccc tgcggagagc tcaagcgccc 150
agctctgccc caggagccca ggctgccccg tgaagcccat agttgctgca 200
ggagtggagc catgagctgc gtccctgggtg gtgtcatccc cttggggctg 250
ctgttccttg tctgcggatc ccaaggtcac ctcccgccca acgtcactct 300
cttagaggag ctgctcagca aataccagca caacgagtct cactcccggt 350
tccgcagagc catccccagg gaggacaagg aggagatcct catgctgcac 400
aacaagcttc ggggccagggt gcagcctcag gcctccaaca tggagtacat 450
ggtgagcgcc ggctccggcc gcagaggctg gcaccggggg tggggcctgg 500
gcccaccagcc tgctctgttc ccagccagc tctgttcccc agccagtgcg 550
tgtgatggct ggctcagggt ctccctctggc aggggaggat ccgcgctctg 600
ttctgtttt ttgtttgtt ttgagacagg gtctcactct gccactgacg 650
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gttaagcgat cctgcttcag cctcccaagt agctggaact acaggcatgc 750
accatggtgc ccagctagat tttaaatatt ttgtggagat gggggtcttg 800
ctacgttgcc caggctggtc ttgaactcct aggcctcaagc aatcctcctg 850
cctcagcctc tcaaaagtct aggattatag gcatgagtc cctgtctgtg 900
ctctggctct gttcttaaca ttctgcaaaa acaacacagc tgggttccct 950
gtgcagagcc tgccctgttg ccttcattgc actcttggtg gctccactgg 1000
gaacacagct ctcagccttt ccacacctga gcagagtggt gggggggccc 1050
agggtgggc tttgctgatg ctgatctcag ctgtgccaca cgctagctgc 1100
accacctga cttctcctta gccogtgtga gctcacttt ccaactggag 1150
agtctctct cgogtggttg ccatgactgt gagataagtc gaggctgtga 1200
aggggccggc acagactgac ctgcctcccc aaccctagg ctttgctaac 1250
cgggaaagga gctaacgggt acagaagaca gccaaggta accctcccg 1300
gtgattgtga tgggtgttcc aggtgtggtt gggcgatgct gctacttgac 1350

cccaagctcc agtggtgaaa ctctcttctt ggctggtttt ccagaactac 1400
 agaggaatgg accacagtct tcagggttcc ctctcgtcc accaaccggg 1450
 agcctccacc ttggccatcc gtcagctatg aatggtttt taaacaaacc 1500
 cacgtcccag cctgggtaac atggtaaagc cccgtctcta caaaaaaac 1550
 caagttagcc gggcatgggt gtgcgcacct gtatgccag ctgcagtggg 1600
 actgaggtgg aggtggaggt ggggggtggg agctgaggaa ggaggatcgc 1650
 ttgagcctgg gaagtcgagg ctgcagtggg ctgagattgc accactgcac 1700
 tccagcctgg gtgacagagc aagaccctgt ctcaaaa 1738

<210> 361
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 361
 Met Ser Cys Val Leu Gly Gly Val Ile Pro Leu Gly Leu Leu Phe
 1 5 10 15
 Leu Val Cys Gly Ser Gln Gly Tyr Leu Leu Pro Asn Val Thr Leu
 20 25 30
 Leu Glu Glu Leu Leu Ser Lys Tyr Gln His Asn Glu Ser His Ser
 35 40 45
 Arg Val Arg Arg Ala Ile Pro Arg Glu Asp Lys Glu Glu Ile Leu
 50 55 60
 Met Leu His Asn Lys Leu Arg Gly Gln Val Gln Pro Gln Ala Ser
 65 70 75
 Asn Met Glu Tyr Met Val Ser Ala Gly Ser Gly Arg Arg Gly Trp
 80 85 90
 His Arg Gly Trp Gly Leu Gly His Gln Pro Ala Leu Phe Pro Ser
 95 100 105
 Gln Leu Cys Ser Pro Ala Ser Ala Cys Asp Gly Trp Leu Arg Val
 110 115 120
 Ser Ser Gly Arg Gly Gly Ser Arg Leu Cys Ser Val Leu Phe Val
 125 130 135
 Cys Phe Glu Thr Gly Ser His Ser Ala Thr Asp Ala Gly Val Gln
 140 145 150
 Trp His Asn Arg His Ala Leu Lys Pro
 155

<210> 362
 <211> 422
 <212> DNA
 <213> Homo sapiens

<400> 362
 aaggagaggc caccgggact tcagtgtctc ctccatccca ggagcgcagt 50

ggccactatg gggctctgggc tgccccttgt cctcctcttg accctccttg 100
gcagctcaca tggaaacaggg cggggtatga ctttgcaact gaagctgaag 150
gagtcctttc tgacaaattc ctccatgatg tccagcttcc tgggaattgct 200
tgaaaagctc tgccctctcc tccatctccc ttcaggggacc agcgtcaccc 250
tccaccatgc aagatctcaa caccatgttg totgcaacac atgacagcca 300
ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggaatgcagga 350
ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400
ataaataaaa ttcggtatgc tg 422

<210> 363
<211> 78
<212> PRT
<213> Homo sapiens

<400> 363
Met Gly Ser Gly Leu Pro Leu Val Leu Leu Thr Leu Leu Gly 15
1 5 10
Ser Ser His Gly Thr Gly Pro Gly Met Thr Leu Gln Leu Lys Leu 30
20 25
Lys Glu Ser Phe Leu Thr Asn Ser Ser Tyr Glu Ser Ser Phe Leu 45
35 40
Glu Leu Leu Glu Lys Leu Cys Leu Leu Leu His Leu Pro Ser Gly 60
50 55
Thr Ser Val Thr Leu His His Ala Arg Ser Gln His His Val Val 75
65 70
Cys Asn Thr

<210> 364
<211> 826
<212> DNA
<213> Homo sapiens

<400> 364
aattgtatct gtgtaatgtt aaaacaaacg aaataaaata gaaggaaaaa 50
ctttctgagt ttcaaaaaca acagactagt actctaaaga actctttaaa 100
acaattaact gttaggattg cagttatgat tggatattat ttaattctgt 150
ttctgatgtg gggttcctcc actgtgttct gtgtgctatt aatatttacc 200
attgcagaag cttcattcag tgttgaaaat gaatgccttag tggatctgtg 250
cctcttacgc atatgttaca aattatctgg agttcctaata caatgcagag 300
ttcccctccc ctccgattgt tctaataaat tgaaagatgt ctgctgtgga 350
aaaaggcatg tatttaaato tgtatgattc tcaaccatct ttagttggga 400
aaggtccttg aaagccaatg gaaatacttt tttttttct tggcactaat 450

caagtgagtg ttaccttttc acttagtagg atgtgttgtt acgtagtaa 500
aatagaaacc tgtgtttatt ctacaggtatt ttagaaacaa cagccatcat 550
ttttttttat gtgtgtgttc ttggctgtat tcataaatta tatatttgg 600
gctatcaaat attacttcat tcaatataaa taacaatagt agaagttggt 650
tacttagata tgctttctag ttgcatttcc tcagcctatg taagactact 700
ttgttgtaat agcctttgaa atttacagta ctgtctctct actatcttca 750
gattacttga ttcaataaaa ccaattatgt ttgtaattga tattaataaa 800
accagaataa aagttcatat ctaccc 826

<210> 365
<211> 67
<212> PRT
<213> Homo sapiens

<400> 365
Met Ile Gly Tyr Tyr Leu Ile Leu Phe Leu Met Trp Gly Ser Ser
1 5 10 15
Thr Val Phe Cys Val Leu Leu Ile Phe Thr Ile Ala Glu Ala Ser
20 25 30
Phe Ser Val Glu Asn Glu Cys Leu Val Asp Leu Cys Leu Leu Arg
35 40 45
Ile Cys Tyr Lys Leu Ser Gly Val Pro Asn Gln Cys Arg Val Pro
50 55 60
Leu Pro Ser Asp Cys Ser Lys
65

<210> 366
<211> 2475
<212> DNA
<213> Homo sapiens

<400> 366
gaggatttgc cacagcagcg gatagagcag gagagcacca cggagccct 50
tgagacatcc ttgagaagag ccacagcata agagactgcc ctgcttggtg 100
ttttgcagga tgatggtggc ccttcgagga gcttctgcat tgcctgttct 150
gttcccttga gcttttctgc ccccgccgca gtgtaccag gaccagcca 200
tggtgcatta catctaccag cgctttcgag tcttgagca agggctggaa 250
aaatgtaccc aagcaacgag ggcatatatt caagaattcc aagagttctc 300
aaaaaatata totgtcatgc tgggaagatg tcagacctac acaagtga 350
acaagagtgc agtgggtaac ttggcaactga gagttgaaag tgcccaacgg 400
gagattgaact acatacaata ccttcgagag gctgacgagt gcactgtatc 450
agaggacaag acactggcag aaatgttgc ccaagaagct gaagaagaga 500

aaaagatccg gactctgctg aatgcaagct gtgacaacat gctgatgggc 650
 ataaagtctt tgaataatag gaagaagatg atggacacac atggctcttg 600
 gatgaaagat gctgtctata actctccaaa ggtgtactta ttaattggat 650
 ccagaaacaa cactgtttgg gaatttgcaa acatacgggc attcatggag 700
 gataacacca agccagctcc ccggaagcaa atcctaacac tttcctggca 750
 gggaacaggc caagtgtatc acaaaggttt tctatttttt cataaccaag 800
 caactcttaa tgagataatc aaatataacc tgcagaagag gactgtggaa 850
 gatogaatgc tgcctccagg aggggttagc cgagcattgg tttaccagca 900
 ctccccctca acttacattg acctggctgt ggatgagcat gggctctggg 950
 ccatccactc tgggccaggc acccatagcc attggttct cacaagatt 1000
 gagccgggca cactgggagt ggagcattca tgggataccc catgcagaag 1050
 ccaggatgct gaagcctcat tcctcttggt tggggttctc tatgtggtct 1100
 acagtactgg gggccagggc cctcatcgca tcacctgcat ctatgatcca 1150
 ctggggcacta tcagtggaga ggacttgccc aacttgttct tccccaaag 1200
 accaagaagt cactccatga tccattaca cccagagat aagcagctct 1250
 atgcctggaa tgaaggaaac cagatcattt acaaactcca gacaaagaga 1300
 aagctgcctc tgaagtaatg cattacagct gtgagaaaga gcaactgtgg 1350
 tttggcagct gttctacagg acagtggagc tatagccctc tcaaatata 1400
 gtatccctct aatcacacac aggaagagtg tgtagaagtg gaaatacgt 1450
 tgctcccttt cccaaatgtc actgccttag gtatcttcca agagcttaga 1500
 tgagagcata tcatcaggaa agtttcaaca atgtccatta ctcccccaa 1550
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 ccacaattag agttgtatgc cagcccttaa tttaccacac tggctttct 1700
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 tattctccca ttttactgc ccaactaaaa tactattaat atttcttct 1800
 tttcttttct ttttttgag acaaggtctc actatgttgc ccaggctgg 1850
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 tgggattaca ggcattgtcc accacacctg gcttaaaata ctatttctta 1950
 ttgaggttta acctctattt cccctagccc tgccttcca ctaagcttg 2000
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 gtgtggagtg tttgcacatc attgaattct cgtttcaact ttgtgaaaca 2100

tgcacaagtc tttacagctg tcattctaga gtttaggtga gtaacacaat 2150
 tacaaagtga aagatacagc tagaaaatac tacaaatccc atagtttttc 2200
 cattgcccaa ggaagcatca aatacgtatg ttgttcacc tactcttata 2250
 gtcaatgcgt tcatcgtttc agcctaaaaa taatagtctg tcccttttagc 2300
 cagttttcat gtctgcacaa gacctttcaa taggcctttc aaatgataat 2350
 tctccagaa aaccagtcta agggtagga ccccaactct agcctcctct 2400
 tgtctgtctg tctctgtttt ctctctttct gctttaaatt caataaaagt 2450
 gacactgagc aaaaaaaaaa aaaaa 2475

<210> 367
 <211> 402
 <212> PRT
 <213> Homo sapiens

<400> 367
 Met Met Val Ala Leu Arg Gly Ala Ser Ala Leu Leu Val Leu Phe
 1 5 10 15
 Leu Ala Ala Phe Leu Pro Pro Pro Gln Cys Thr Gln Asp Pro Ala
 20 25 30
 Met Val His Tyr Ile Tyr Gln Arg Phe Arg Val Leu Glu Gln Gly
 35 40 45
 Leu Glu Lys Cys Thr Gln Ala Thr Arg Ala Tyr Ile Gln Glu Phe
 50 55 60
 Gln Glu Phe Ser Lys Asn Ile Ser Val Met Leu Gly Arg Cys Gln
 65 70 75
 Thr Tyr Thr Ser Glu Tyr Lys Ser Ala Val Gly Asn Leu Ala Leu
 80 85 90
 Arg Val Glu Arg Ala Gln Arg Glu Ile Asp Tyr Ile Gln Tyr Leu
 95 100 105
 Arg Glu Ala Asp Glu Cys Ile Val Ser Glu Asp Lys Thr Leu Ala
 110 115 120
 Glu Met Leu Leu Gln Glu Ala Glu Glu Glu Lys Lys Ile Arg Thr
 125 130 135
 Leu Leu Asn Ala Ser Cys Asp Asn Met Leu Met Gly Ile Lys Ser
 140 145 150
 Leu Lys Ile Val Lys Lys Met Met Asp Thr His Gly Ser Trp Met
 155 160 165
 Lys Asp Ala Val Tyr Asn Ser Pro Lys Val Tyr Leu Leu Ile Gly
 170 175 180
 Ser Arg Asn Asn Thr Val Trp Glu Phe Ala Asn Ile Arg Ala Phe
 185 190 195
 Met Glu Asp Asn Thr Lys Pro Ala Pro Arg Lys Gln Ile Leu Thr
 200 205 210

Leu Ser Trp Gln Gly Thr Gly Gln Val Ile Tyr Lys Gly Phe Leu
 215 220
 Phe Phe His Asn Gln Ala Thr Ser Asn Glu Ile Ile Lys Tyr Asn
 230 235 240
 Leu Gln Lys Arg Thr Val Glu Asp Arg Met Leu Leu Pro Gly Gly
 245 250 255
 Val Gly Arg Ala Leu Val Tyr Gln His Ser Pro Ser Thr Tyr Ile
 260 265 270
 Asp Leu Ala Val Asp Glu His Gly Leu Trp Ala Ile His Ser Gly
 275 280 285
 Pro Gly Thr His Ser His Leu Val Leu Thr Lys Ile Glu Pro Gly
 290 295 300
 Thr Leu Gly Val Glu His Ser Trp Asp Thr Pro Cys Arg Ser Gln
 305 310 315
 Asp Ala Glu Ala Ser Phe Leu Leu Cys Gly Val Leu Tyr Val Val
 320 325 330
 Tyr Ser Thr Gly Gly Gln Gly Pro His Arg Ile Thr Cys Ile Tyr
 335 340 345
 Asp Pro Leu Gly Thr Ile Ser Glu Glu Asp Leu Pro Asn Leu Phe
 350 355 360
 Phe Pro Lys Arg Pro Arg Ser His Ser Met Ile His Tyr Asn Pro
 365 370 375
 Arg Asp Lys Gln Leu Tyr Ala Trp Asn Glu Gly Asn Gln Ile Ile
 380 385 390
 Tyr Lys Leu Gln Thr Lys Arg Lys Leu Pro Leu Lys
 395 400

<210> 368
 <211> 2281
 <212> DNA
 <213> Homo sapiens

<400> 368
 gggcgccgc gtactcacta gctgaggtgg cagtgtgtcc accaactggy 50
 agctctcgca gatgtcggag ctcatggggc tgtcgtgtgt gcttggtgtg 100
 ctggcctga tggcgacggc ggcggtagcg cgggggtggc tgcgcgcggg 150
 ggaggagagg agcgccggc ccgcctgcc aaaagcaaat ggattccac 200
 ctgacaaatc ttcggtatcc aagaagcaga aacaatatca gcggattcgg 250
 aaggagaagc ctcaacaaca caacttcacc caccgcctcc tggctgcagc 300
 tctgaagagc cacagcggga acatatcttg catggacttt agcagcaatg 350
 gcaaatacct ggctacctgt gcgatgato gcaccatccg catctggagc 400
 accaaggact tctgcagcg agagcaccgc agcatgagag ccaactgtga 450

gctggaccac gccacctgg tgcgtttcag ccttgactgc agagccttca 500
 tcgtctggct ggccaacggg gacacctcc gtgtcttcaa gatgaccaag 550
 cgggaggatg ggggctacac cttcacagcc accccagagg acttccttaa 600
 aaagcacaag gcgcctgtca tcgacattgg cattgtctaac acagggaagt 650
 ttatcatgac tgcctccagt gacaccactg tctcatctg gagcctgaag 700
 ggtcaagtgc tgtctacct caacaccaac cagatgaaca acacacacgc 750
 tgtgttatct cctgtggca gattttagc ctctgttggc ttacccccag 800
 atgtgaaggt ttgggaagtc tgctttggaa agaaggggga gttccaggag 850
 gtggtgcgag ccttcgaact aaagggccac tccgcggctg tgcaactcgtt 900
 tgctttctcc aacgactcac ggagatggc ttctgtctcc aaggatggtta 950
 catggaact gtgggacaca gatgtggaat acaagaagaa gcaggacccc 1000
 tacttctga agacaggccg ctttgaagag gcggcgggtg ccgcgcctgt 1050
 ccgcctggcc ctctccccc acgcccagggt ctggccttg gccagtggca 1100
 gtagtattca tctctacaat acccgcgagg gcgagaagga ggagtgtctt 1150
 gagcgggtcc atggcgagtg tatcgccaac ttgtccttg acatcatctg 1200
 ccgctttctg gcctcctgtg gggaccgggc ggtgcggctg ttccacaaca 1250
 ctctggcca ccgagccatg gtggaggaga tgcagggcca cctgaagcgg 1300
 gcctccaacg agagcaccg ccagaggctg cagcagcagc tgaccacagg 1350
 ccaagagacc ctgaagagcc tgggtgccct gaagaagtga ctctgggagg 1400
 gcccggcgca gaggattgag gaggagggat ctggcctcct catggcactg 1450
 ctgccatctt tctcccagg tggaagcctt tcagaaggag tctcctgttt 1500
 ttcttacttg tggcctgtct tctcccatt gaaactactc ttgtctactt 1550
 aggtctctct ctcttctgct gctgtgactc ctccctgact agtgcccaag 1600
 gtgcttttct tctcccagg ccagtggggt ggaatctgtc ccacactggc 1650
 actgaggaga atggtagaga ggagaggaga gagagagaga atgtgatttt 1700
 tggccttggt gcagcacatc ctacaccca aagaagtttg taaatgttcc 1750
 agaacaacct agagaacacc tgagtactaa gcagcagttt tgcaaggatg 1800
 ggagactggg atagcttccc atcacagaac tgtgttccat caaaaagaca 1850
 ctaagggtatt tcttctctgg cctcagttct atttgtaaga tggagaataa 1900
 tctctctgt gaactccttg caaagatgat atgaggctaa gagaatatca 1950
 agtcccagg tctggaagaa aagtagaaaa gagtagtact attgtccaat 2000
 gtcagtgaag tggtaaaagt gggaaccagt gtgctttgaa accaaattag 2050

aaacacattc cttgggaagg caaagttttc tgggacttga tcatacattt 2100
tatatggttg ggacttctct cttcgggaga tgatatcttg ttaaggaga 2150
cctcttttca gttcatcaag ttcacagat atttgagtgc ccactctgtg 2200
cccaataaaa tatgagctgg ggattaaaaa aaaaaaaaaa aaaaaaaaaa 2250
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2281

<210> 369
<211> 447
<212> PRT
<213> Homo sapiens

<400> 369
Met Glu Leu Ser Gln Met Ser Glu Leu Met Gly Leu Ser Val Leu
1 5 10 15
Leu Gly Leu Leu Ala Leu Met Ala Thr Ala Val Ala Arg Gly
20 25 30
Trp Leu Arg Ala Gly Glu Glu Arg Ser Gly Arg Pro Ala Cys Gln
35 40 45
Lys Ala Asn Gly Phe Pro Pro Asp Lys Ser Ser Gly Ser Lys Lys
50 55 60
Gln Lys Gln Tyr Gln Arg Ile Arg Lys Glu Lys Pro Gln Gln His
65 70 75
Asn Phe Thr His Arg Leu Leu Ala Ala Ala Leu Lys Ser His Ser
80 85 90
Gly Asn Ile Ser Cys Met Asp Phe Ser Ser Asn Gly Lys Tyr Leu
95 100 105
Ala Thr Cys Ala Asp Asp Arg Thr Ile Arg Ile Trp Ser Thr Lys
110 115 120
Asp Phe Leu Gln Arg Glu His Arg Ser Met Arg Ala Asn Val Glu
125 130 135
Leu Asp His Ala Thr Leu Val Arg Phe Ser Pro Asp Cys Arg Ala
140 145 150
Phe Ile Val Trp Leu Ala Asn Gly Asp Thr Leu Arg Val Phe Lys
155 160 165
Met Thr Lys Arg Glu Asp Gly Gly Tyr Thr Phe Thr Ala Thr Pro
170 175 180
Glu Asp Phe Pro Lys Lys His Lys Ala Pro Val Ile Asp Ile Gly
185 190 195
Ile Ala Asn Thr Gly Lys Phe Ile Met Thr Ala Ser Ser Asp Thr
200 205 210
Thr Val Leu Ile Trp Ser Leu Lys Gly Gln Val Leu Ser Thr Ile
215 220 225
Asn Thr Asn Gln Met Asn Asn Thr His Ala Val Ser Pro Cys
230 235 240

Gly Arg Phe Val Ala Ser Cys Gly Phe Thr Pro Asp Val Lys Val
 245 250 255
 Trp Glu Val Cys Phe Gly Lys Lys Gly Glu Phe Gln Glu Val Val
 260 265 270
 Arg Ala Phe Glu Leu Lys Gly His Ser Ala Ala Val His Ser Phe
 275 280 285
 Ala Phe Ser Asn Asp Ser Arg Arg Met Ala Ser Val Ser Lys Asp
 290 295 300
 Gly Thr Trp Lys Leu Trp Asp Thr Asp Val Glu Tyr Lys Lys Lys
 305 310 315
 Gln Asp Pro Tyr Leu Leu Lys Thr Gly Arg Phe Glu Glu Ala Ala
 320 325 330
 Gly Ala Ala Pro Cys Arg Leu Ala Leu Ser Pro Asn Ala Gln Val
 335 340 345
 Leu Ala Leu Ala Ser Gly Ser Ser Ile His Leu Tyr Asn Thr Arg
 350 355 360
 Arg Gly Glu Lys Glu Glu Cys Phe Glu Arg Val His Gly Glu Cys
 365 370 375
 Ile Ala Asn Leu Ser Phe Asp Ile Thr Gly Arg Phe Leu Ala Ser
 380 385 390
 Cys Gly Asp Arg Ala Val Arg Leu Phe His Asn Thr Pro Gly His
 395 400 405
 Arg Ala Met Val Glu Glu Met Gln Gly His Leu Lys Arg Ala Ser
 410 415 420
 Asn Glu Ser Thr Arg Gln Arg Leu Gln Gln Gln Leu Thr Gln Ala
 425 430 435
 Gln Glu Thr Leu Lys Ser Leu Gly Ala Leu Lys Lys
 440 445

<210> 370
 <211> 1415
 <212> DNA
 <213> Homo sapiens

<400> 370
 tggcctcccc agcttgccag gcacaaggct gagcgggagg aagcgagagg 50
 catctaagca ggcagtgttt tgccttcacc ccaagtgacc atgagagagt 100
 ccacgcgagt ctcaatcatg ctctctcctag taactgtgtc tgactgtgct 150
 gtgatcacag gggcctgtga gcgggatgtc cagtgtgggg caggcacctg 200
 ctgtgccatc agcctgtggc ttcgagggct gcggatgtgc acccgcctgg 250
 ggcgggaagg cgaggagtgc caccgccgca gccacaaggt cccctttctc 300
 aggaacgcga agcaccacac ctgtccttgc ttgcccaacc tgetgtgtctc 350
 caggttcccg gacggcaggt accgctgtctc catggacttg aagaacatca 400

atttttaggc gcttgctggt tctcaggata cccaccatcc ttttctgag 450
 cacagcctgg atttttattt ctgccatgaa acccagctcc catgactctc 500
 ccagtcctta cactgactac cctgatctct ettgcttagt acgcacatat 550
 gcacacaggg agacatacct cccatcatga catggtcccc aggttgccct 600
 gaggatgtca cagcttgagg ctgtggtgtg aaaggtggcc agcctgggtc 650
 tcttccctgc tcaggctgcc agagaggtgg taaatggcag aaaggacatt 700
 cccctccccc tcccagggtg acctgctctc tttctgggc cctgccccct 750
 tcccacatg tatccctcgg tctgaattag acattcctgg gcacaggctc 800
 ttgggtgcat tgctcagagt cccaggctct ggcccgaccc tcaggccctt 850
 cactgtgagt ctgtgaggac caatttgtgg gtatgtcatc ttcctcgat 900
 tgggttaact cttagtttca gaccacagac tcaagattgg ctcttcccag 950
 agggcagcag acagtcaccc caaggcaggt gtaggaggcc caggagggcc 1000
 aatcagcccc ctgaagactc tgggtccagt cagcctgtgg cttgtggcct 1050
 gtgacctgtg accttctgcc agaattgtca tgcctctgag gccctctctt 1100
 accacacttt accagttaac cactgaagcc cccaattccc acagcttttc 1150
 cattaaaatg caaatggtgg tgggtcaatc taatctgata ttgacatatt 1200
 agaaggcaat tagggtgttt ccttaacaa ctcttttcca aggatcagcc 1250
 ctgagagcag gttggtgact ttgaggaggg cagtcctctg tcagattgg 1300
 ggtgggagca agggacaggg agcagggcag gggctgaaa gggcactgat 1350
 tcagaccagg gaggcaacta cacaccaaca tgctggcttt agaataaaa 1400
 caccaactga aaaaa 1415

<210> 371
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 371
 Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr
 1 5 10 15
 Val Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val
 20 25 30
 Gln Cys Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg
 35 40 45
 Gly Leu Arg Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys
 50 55 60
 His Pro Gly Ser His Lys Val Pro Phe Phe Arg Lys Arg Lys His
 65 70 75

His Thr Cys Pro Cys Leu Pro Asn Leu Leu Cys Ser Arg Phe Pro
80 85 90

Asp Gly Arg Tyr Arg Cys Ser Met Asp Leu Lys Asn Ile Asn Phe
95 100 105

<210> 372

<211> 1281

<212> DNA

<213> Homo sapiens

<400> 372

agcgccggcg cgtcggggcg gtaaaaggcc ggcagaaggg aggcacttga 50
gaaatgtctt tcctccagga cccaagtctt ttcacatggt ggatgtggtc 100
cattgtgtga ggagccctgg gggctgctgc cttggcattg ctgcttgcca 150
acacagacgt gtttctgtcc aagccccaga aagcgccctt ggagtacctg 200
gaggatatag acctgaaaac actggagaag gaaccaagga ctttcaaagc 250
aaaggagcta tgggaaaaaa atggagctgt gattatggcc gtgcggaggc 300
caggctgttt cctctgtoga gaggaagctg cggatctgtc ctccctgaaa 350
agcatgttgg accagctggg cgtccccctc tatgcagtgg taaaggagca 400
catcaggact gaagtgaagg atttccagcc ttatttcaaa ggagaaatct 450
tcctggatga aaagaaaaag ttctatgtgc cacaaaggcg gaagatgatg 500
tttatgggat ttatccgtct gggagtgtgg tacaacttct tccagacctg 550
gaacggaggc ttctctggaa acctggaagg agaaggcttc atccttgggg 600
gagtttctgt ggtgggatca ggaaagcagg gcattcttct tgagcaccca 650
gaaaagaat ttggagacaa agtaaaccta ctttctgttc tggaaagctg 700
taagatgata aaaccacaga ctttggcctc agagaaaaaa tgattgtgtg 750
aaactgcccc gctcagggat aaccagggac attcacctgt gttcatggga 800
tgtattgttt ccaactgtgt ccctaaggag tgagaaacct atttatactc 850
tactctcagt atggattatt aatgtatttt aatattctgt tttagccca 900
taaggcaaaa tagcccaaaa acaagactga caaaaatctg aaaaactaat 950
gaggattatt aagctaaaac ctgggaaata ggaggcttaa aattgactgc 1000
caggctgggt gcagtggctc acacctgtaa tccagcact ttgggaggcc 1050
aaggtagaca agtcacttga ggtcgggagt tcgagaccag cctgagcaac 1100
atggcgaaac cccgtctcta ctaaaaatac aaaaatcacc cgggtgtggt 1150
ggcaggcacc tgtagtccca gctaccoggg aggctgaggc aggagaatca 1200
cttgaacctg ggaggtggag gttcggtgta gctgagatca caccactgta 1250
ttccagcctg ggtgactgag actctaacta a 1281

<210> 373
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 373
 Met Ser Phe Leu Gln Asp Pro Ser Phe Phe Thr Met Gly Met Trp
 1 5 10 15
 Ser Ile Gly Ala Gly Ala Leu Gly Ala Ala Ala Leu Ala Leu Leu
 20 25 30
 Leu Ala Asn Thr Asp Val Phe Leu Ser Lys Pro Gln Lys Ala Ala
 35 40 45
 Leu Glu Tyr Leu Glu Asp Ile Asp Leu Lys Thr Leu Glu Lys Glu
 50 55 60
 Pro Arg Thr Phe Lys Ala Lys Glu Leu Trp Glu Lys Asn Gly Ala
 65 70 75
 Val Ile Met Ala Val Arg Arg Pro Gly Cys Phe Leu Cys Arg Glu
 80 85 90
 Glu Ala Ala Asp Leu Ser Ser Leu Lys Ser Met Leu Asp Gln Leu
 95 100 105
 Gly Val Pro Leu Tyr Ala Val Val Lys Glu His Ile Arg Thr Glu
 110 115 120
 Val Lys Asp Phe Gln Pro Tyr Phe Lys Gly Glu Ile Phe Leu Asp
 125 130 135
 Glu Lys Lys Lys Phe Tyr Gly Pro Gln Arg Arg Lys Met Met Phe
 140 145 150
 Met Gly Phe Ile Arg Leu Gly Val Trp Tyr Asn Phe Phe Arg Ala
 155 160 165
 Trp Asn Gly Gly Phe Ser Gly Asn Leu Glu Gly Glu Gly Phe Ile
 170 175 180
 Leu Gly Gly Val Phe Val Val Gly Ser Gly Lys Gln Gly Ile Leu
 185 190 195
 Leu Glu His Arg Glu Lys Glu Phe Gly Asp Lys Val Asn Leu Leu
 200 205 210
 Ser Val Leu Glu Ala Ala Lys Met Ile Lys Pro Gln Thr Leu Ala
 215 220 225
 Ser Glu Lys Lys

<210> 374
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 374
 acggaccgag ggttcgaggg agggacacgg accaggaacc tgagctaggt 50
 caaagacgcc cgggccaggt gccccgtcgc aggtgccctt ggccggagat 100

gcggtaggag gggcgagcgc gagaagcccc ttctctggcg ctgccaaacc 150
gccaccacgc ccatggcgaa ccccgggctg gggctgtctc tggcgctggg 200
cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250
ccacttctgc aaatgagaat agcactgttt tgccttcate caccagctcc 300
agctccgatg gcaacctcgc tccggaagcc atcactgcta tcactgttgt 350
cttctccttc ttggctgcct tgctcctggc tgtggggctg gaactgttgg 400
tgcggaagct tggggagaag cggcagacgg agggcaccta ccggcccgact 450
agcgaggagc agttctccca tgcagcccgag gcccgggccc ctcaggactc 500
caaggagacg gtgcagggct gcctgcccat ctagggtccc tctcctgcac 550
ctgtctcctc tcattgtgtg gtgacctgg ggaagcgag tgcctctctc 600
gggcagtcag atccaccacg tgcttaatag cagggaagaa ggtacttcaa 650
agactctgcc cctgagggtc agagaggatg gggctattca cttttatata 700
tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 375

<211> 123

<212> PRT

<213> Homo sapiens

<400> 375

Met	Ala	Asn	Pro	Gly	Leu	Gly	Leu	Leu	Ala	Leu	Gly	Leu	Pro
1				5					10				15
Phe	Leu	Leu	Ala	Arg	Trp	Gly	Arg	Ala	Trp	Gly	Gln	Ile	Gln
			20						25				30
Thr	Ser	Ala	Asn	Glu	Asn	Ser	Thr	Val	Leu	Pro	Ser	Ser	Thr
			35						40				45
Ser	Ser	Ser	Asp	Gly	Asn	Leu	Arg	Pro	Glu	Ala	Ile	Thr	Ala
			50						55				60
Ile	Val	Val	Phe	Ser	Leu	Leu	Ala	Ala	Leu	Leu	Leu	Ala	Val
			65						70				75
Leu	Ala	Leu	Leu	Val	Arg	Lys	Leu	Arg	Glu	Lys	Arg	Gln	Thr
			80						85				90
Gly	Thr	Tyr	Arg	Pro	Ser	Ser	Glu	Glu	Gln	Phe	Ser	His	Ala
			95						100				105
Glu	Ala	Arg	Ala	Pro	Gln	Asp	Ser	Lys	Glu	Thr	Val	Gln	Gly
			110						115				120

Leu Pro Ile

<210> 376

<211> 713

<212> DNA

<213> Homo sapiens

<400> 376
aatatatcat ctatttatca ttaatcaata atgtattott ttattccaat 50
aacatttggg ttttgggatt ttaattttca aacacagcag aatgacattt 100
tttctgtcac tattattatt gttggtatgt gaagctattt ggagatccaa 150
ttcaggaagc aacacattgg agaatggcta ctttctatca agaaataaag 200
agaaccacag tcaaccaca caatcatctt tagaagacag tgtgactcct 250
accaagctg tcaaaaccac aggcaagggc atagttaaag gacggaatct 300
tgactcaaga gggttaattc ttggtgctga agcctggggc aggggtgtaa 350
agaaaaacac ttagattcaa tgattgtaaa ttttaaggcaa atacacatat 400
tagtattacc ttagtgaat gtatccctgt catatatata ataagtgaa 450
attataagta ccctatgcag ttggctggac agttctaaat tggactttat 500
taatttttaa aatcagtaac tgatttatca ctggctatgt gcttagatct 550
acaggagatc atataatttg atacaaataa aagaaaagtg ttctctcccc 600
ttacagaatt gacattttaa atgcgataca gttagaatag gaaatatgac 650
attagaaagg aagaatgaca gggagaaagg aaagaaggga aaatgttgcc 700
aaggaaaaaa aaa 713

<210> 377
<211> 90
<212> PRT
<213> Homo sapiens

<400> 377
Met Thr Phe Phe Leu Ser Leu Leu Leu Leu Val Cys Glu Ala
1 5 10 15
Ile Trp Arg Ser Asn Ser Gly Ser Asn Thr Leu Glu Asn Gly Tyr
20 25 30
Phe Leu Ser Arg Asn Lys Glu Asn His Ser Gln Pro Thr Gln Ser
35 40 45
Ser Leu Glu Asp Ser Val Thr Pro Thr Lys Ala Val Lys Thr Thr
50 55 60
Gly Lys Gly Ile Val Lys Gly Arg Asn Leu Asp Ser Arg Gly Leu
65 70 75
Ile Leu Gly Ala Glu Ala Trp Gly Arg Gly Val Lys Lys Asn Thr
80 85 90

<210> 378
<211> 3265
<212> DNA
<213> Homo sapiens

<400> 378
gccaggaata actagagagg aacaatgggg ttattcagag gttttgtttt 50

cctcttagtt	ctg'gcctgc	tgaccagtc	aaatacttc	ttcataaagc	100
tgaataataa	tggctttgaa	gatattgtca	ttgttataga	tcctagtgtg	150
ccagaagatg	aaaaataat	tgaacaata	gaggatatgg	tgactacagc	200
ttctacgtac	ctgtttgaag	ccacagaaaa	aagatTTTT	ttcaaaaatg	250
tatctatatt	aattcctgag	aattggaagg	aaaatcctca	gtacaaaagg	300
ccaaaacatg	aaaaccataa	acatgctgat	gttatagtgt	caccacctac	350
actcccaggt	agagatgaac	catacaccaa	gcagttcaca	gaatgtggag	400
agaaaggcga	atacattcac	ttcacccctg	acctcttact	tggaaaaaaa	450
caaaatgaat	atggaccacc	aggcaaaactg	ttgtccatg	agtgggctca	500
cctccggtgg	ggagtgtttg	atgagtacaa	tgaagatcag	cctttctacc	550
gtgctaagtc	aaaaaaaaatc	gaagcaacaa	ggtgttccgc	aggatatctc	600
ggtagaaata	gagtttataa	gtgtcaagga	ggcagctgtc	ttagtagagc	650
atgcagaatt	gattctacaa	caaaactgta	tggaaaagat	tgtcaattct	700
ttcctgataa	agtacaaaaa	gaaaaagcat	ccataatgtt	tatgcaaaat	750
attgattctg	ttgttgaatt	ttgtaacgaa	aaaacccata	atcaagaagc	800
tcaaagccta	caaaacataa	agtgcaattt	tagaagtaca	tgggagggtga	850
ttagcaattc	tgaggatttt	aaaaacacca	taccatgggt	gacaccacct	900
cctccacctg	tcttctcatt	gctgaagatc	agtcaaaaga	ttgtgtgctt	950
agtcttctat	aagctcggaa	gcattggggg	taaggaccgc	ctaaatcgaa	1000
tgaatcaagc	agcaaaacat	ttcctgctgc	agactgttga	aatggatcc	1050
tgggtgggga	tggttcactt	tgatagtact	gccactattg	taaataagct	1100
aatccaaata	aaaagcagtg	atgaaagaaa	cacactcatg	gcaggattac	1150
ctacatatcc	tctgggagga	acttccatct	gctctggaat	taaatatgca	1200
tttcagggtga	tggagagact	acattcccaa	ctcgatggat	cgaagtact	1250
gctgctgact	gatggggagg	ataacactgc	aagtctctgt	attgatgaag	1300
tgaacaacag	tggggccatt	gttcatttta	ttgctttggg	aagagctgct	1350
gatgaagcag	taatagagat	gagcaagata	acaggaggaa	gtcattttta	1400
tgtttcagat	gaagctcaga	acaatggcct	cattgatgct	tttggggctc	1450
ttacatcagg	aaatactgat	ctctcccaga	agtcctctca	gtcgaagaat	1500
aagggattaa	cactgaatag	taatgcctgg	atgaacgaca	ctgtcataat	1550
tgatagtaca	gtgggaaagg	acacgttctt	tctcatcaca	tggaacagtc	1600
tgcctcccaq	tatttctctc	tgggattcca	atggaaacaat	aatggaaaaa	1650

ttcacagtgg atgcaacttc caaaatggcc tatctcagta ttccaggaac 1700
 tgcaaaagtg ggcacttggg catacaatct tcaagccaaa gcgaaccag 1750
 aaacattaac tattacagta acttctcgag cagcaaatc ttctgtgctt 1800
 ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850
 cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900
 gagccaatgt gactgcttcc attgaatcac agaattggaca tacagaagtt 1950
 ttggaacttt tggataatgg tgcaggcgct gattctttca agaattgatg 2000
 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050
 taaaagttcg ggctcatgga ggagcaaaaca ctgccaggct aaaattacgg 2100
 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150
 aattgaagca aacccgccaa gacctgaaat tgatgaggat actcagacca 2200
 ccttgaggga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250
 caagtcccaa gccttccctt gcctgaccaa taccaccaa gtcaaatcac 2300
 agacctgat gccacagttc atgaggataa gattattctt acatggacag 2350
 caccaggaga taattttgat gttggaaaag tcaacgtta tatcataaga 2400
 ataagtgcga gtattcttga tctaagagac agttttgatg atgctcttca 2450
 agtaaatact actgatctgt caccaaaagga ggccaactcc aaggaaagct 2500
 ttgcatttaa accagaaaat atctcagaag aaaatgcaac ccacatatct 2550
 attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600
 cattgcacaa gtaactttgt ttatccctca agcaaatcct gatgacattg 2650
 atcctacacc tactcctact cctactccta ctctgataa aagtcataat 2700
 tctggagtta atatttctac gctggtattg tctgtgattg ggtctgtgtg 2750
 aattgttaac tttattttaa gtaccaccat ttgaacctta acgaagaaaa 2800
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 gttaaaggata tttctgaatc ttaaaattca tccatgtgt gatcataaac 2900
 tcataaaaat aattttaaga tgtcgaaaaa ggatactttg attaaataaa 2950
 aacactcatg gatattgaaa aactgtcaag attaaaaatt aatagtttca 3000
 tttatttgtt attttatttg taagaaatag tgatgaacaa agatcctttt 3050
 tcatactgat acctgggtgt atattatttg atgcaacagt tttctgaaat 3100
 gatatttcaa attgcatcaa gaaattaaaa tcatctatct gagtagtcaa 3150
 aatacaagta aaggagagca aataaacaac atttgaaaaa aaaaaaaaaa 3200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3250

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<210> 379
<211> 919
<212> PRT
<213> Homo sapiens

<400> 379
Met Gly Leu Phe Arg Gly Phe Val Phe Leu Leu Val Leu Cys Leu
1 5 10 15
Leu His Gln Ser Asn Thr Ser Phe Ile Lys Leu Asn Asn Asn Gly
20 25 30
Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp
35 40 45
Glu Lys Ile Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser
50 55 60
Thr Tyr Leu Phe Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn
65 70 75
Val Ser Ile Leu Ile Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr
80 85 90
Lys Arg Pro Lys His Glu Asn His Lys His Ala Asp Val Ile Val
95 100 105
Ala Pro Pro Thr Leu Pro Gly Arg Asp Glu Pro Tyr Thr Lys Gln
110 115 120
Phe Thr Glu Cys Gly Glu Lys Gly Glu Tyr Ile His Phe Thr Pro
125 130 135
Asp Leu Leu Leu Gly Lys Lys Gln Asn Glu Tyr Gly Pro Pro Gly
140 145 150
Lys Leu Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val Phe
155 160 165
Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg Ala Lys Ser Lys
170 175 180
Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser Gly Arg Asn
185 190 195
Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg Ala Cys
200 205 210
Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln Phe
215 220 225
Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met
230 235 240
Gln Ser Ile Asp Ser Val Val Glu Phe Cys Asn Glu Lys Thr His
245 250 255
Asn Gln Glu Ala Pro Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg
260 265 270
Ser Thr Trp Gly Val Ile Ser Asn Ser Glu Asp Phe Lys Asn Thr

	275		280		285
Ile Pro Met Val Thr Pro Pro Pro Pro	290	Pro Val Phe Ser Leu Leu	295	300	
Lys Ile Ser Gln Arg Ile Val Cys Leu	305	Val Leu Asp Lys Ser Gly	310	315	
Ser Met Gly Gly Lys Asp Arg Leu Asn	320	Arg Met Asn Gln Ala Ala	325	330	
Lys His Phe Leu Leu Gln Thr Val Glu	335	Asn Gly Ser Trp Val Gly	340	345	
Met Val His Phe Asp Ser Thr Ala Thr	350	Ile Val Asn Lys Leu Ile	355	360	
Gln Ile Lys Ser Ser Asp Glu Arg Asn	365	Thr Leu Met Ala Gly Leu	370	375	
Pro Thr Tyr Pro Leu Gly Gly Thr Ser	380	Ile Cys Ser Gly Ile Lys	385	390	
Tyr Ala Phe Gln Val Ile Gly Glu Leu	395	His Ser Gln Leu Asp Gly	400	405	
Ser Glu Val Leu Leu Leu Thr Asp Gly	410	Glu Asp Asn Thr Ala Ser	415	420	
Ser Cys Ile Asp Glu Val Lys Gln Ser	425	Gly Ala Ile Val His Phe	430	435	
Ile Ala Leu Gly Arg Ala Ala Asp Glu	440	Ala Val Ile Glu Met Ser	445	450	
Lys Ile Thr Gly Gly Ser His Phe Tyr	455	Val Ser Asp Glu Ala Gln	460	465	
Asn Asn Gly Leu Ile Asp Ala Phe Gly	470	Ala Leu Thr Ser Gly Asn	475	480	
Thr Asp Leu Ser Gln Lys Ser Leu Gln	485	Leu Glu Ser Lys Gly Leu	490	495	
Thr Leu Asn Ser Asn Ala Trp Met Asn	500	Asp Thr Val Ile Ile Asp	505	510	
Ser Thr Val Gly Lys Asp Thr Phe Phe	515	Leu Ile Thr Trp Asn Ser	520	525	
Leu Pro Pro Ser Ile Ser Leu Trp Asp	530	Pro Ser Gly Thr Ile Met	535	540	
Glu Asn Phe Thr Val Asp Ala Thr Ser	545	Lys Met Ala Tyr Leu Ser	550	555	
Ile Pro Gly Thr Ala Lys Val Gly Thr	560	Trp Ala Tyr Asn Leu Gln	565	570	
Ala Lys Ala Asn Pro Glu Thr Leu Thr	575	Ile Thr Val Thr Ser Arg	580	585	
Ala Ala Asn Ser Ser Val Pro Pro Ile		Thr Val Asn Ala Lys Met			

	590		595		600
Asn Lys Asp Val	Asn Ser Phe Pro Ser	Pro Met Ile Val Tyr Ala			
	605		610		615
Glu Ile Leu Gln	Gly Tyr Val Pro Val	Leu Gly Ala Asn Val Thr			
	620		625		630
Ala Phe Ile Glu	Ser Gln Asn Gly His Thr	Glu Val Leu Glu Leu			
	635		640		645
Leu Asp Asn Gly	Ala Gly Ala Asp Ser	Phe Lys Asn Asp Gly Val			
	650		655		660
Tyr Ser Arg Tyr	Phe Thr Ala Tyr Thr	Glu Asn Gly Arg Tyr Ser			
	665		670		675
Leu Lys Val Arg	Ala His Gly Gly Ala	Asn Thr Ala Arg Leu Lys			
	680		685		690
Leu Arg Pro Pro	Leu Asn Arg Ala Ala	Tyr Ile Pro Gly Trp Val			
	695		700		705
Val Asn Gly Glu	Ile Glu Ala Asn Pro	Pro Arg Pro Glu Ile Asp			
	710		715		720
Glu Asp Thr Gln	Thr Thr Leu Glu Asp	Phe Ser Arg Thr Ala Ser			
	725		730		735
Gly Gly Ala Phe	Val Val Ser Gln Val	Pro Ser Leu Pro Leu Pro			
	740		745		750
Asp Gln Tyr Pro	Pro Ser Gln Ile Thr	Asp Leu Asp Ala Thr Val			
	755		760		765
His Glu Asp Lys	Ile Ile Leu Thr Trp	Thr Ala Pro Gly Asp Asn			
	770		775		780
Phe Asp Val Gly	Lys Val Gln Arg Tyr	Ile Ile Arg Ile Ser Ala			
	785		790		795
Ser Ile Leu Asp	Leu Arg Asp Ser Phe	Asp Asp Ala Leu Gln Val			
	800		805		810
Asn Thr Thr Asp	Leu Ser Pro Lys Glu	Ala Asn Ser Lys Glu Ser			
	815		820		825
Phe Ala Phe Lys	Pro Glu Asn Ile Ser	Glu Glu Asn Ala Thr His			
	830		835		840
Ile Phe Ile Ala	Ile Lys Ser Ile Asp	Lys Ser Asn Leu Thr Ser			
	845		850		855
Lys Val Ser Asn	Ile Ala Gln Val Thr	Leu Phe Ile Pro Gln Ala			
	860		865		870
Asn Pro Asp Asp	Ile Asp Pro Thr Pro	Thr Pro Thr Pro Thr Pro			
	875		880		885
Thr Pro Asp Lys	Ser His Asn Ser Gly	Val Asn Ile Ser Thr Leu			
	890		895		900
Val Leu Ser Val	Ile Gly Ser Val Val	Ile Val Asn Phe Ile Leu			

Ser Thr Thr Ile

<210> 380
 <211> 3877
 <212> DNA
 <213> Homo sapiens

<400> 380
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 gaccagagag agcaatgatg tagccacctc ctaaccttcc cttcttgaac 200
 cccagttat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250
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 aaggaaaggt cccctcttgc tgttgctgc acatcaggaa ggctgtgatg 400
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 ccaagaggca gaactcgttc tagaaggaaa tggatgcaag cagctccggg 550
 ggcccaaac gcatgcttcc tgtggtctag ccagggaag ccttccgtg 600
 ggggccccg ctttgaggga tgccaccggt tctggacgca tggctgattc 650
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 tggttttgct ggtgctctcc tgctgtgcta tctctgtcct gtacatgttg 750
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 cagccccacg ggaaggagg ggtaccaggc cgtccttcag gaggggagg 850
 agcagcaccg caactacgtg agcagcctga agcggcagat cgcacagctc 900
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 cccaggccga cctcctggcc ttctgcact cgcagggtga caaggcagag 1050
 gtgaatgctg gcgtcaagct ggccacagag tatgcagcag tgcctttcga 1100
 tagctttact ctacagaagg tgtaccagct ggagactggc cttaccgcc 1150
 accccgagga gaagcctgtg aggaaggaca agcgggatga gttggtgaa 1200
 gccattgaat cagccttgga gaccctgaac aatcctgcag agaacagccc 1250
 caataccgt ccttacacgg cctctgattt catagaaggg atctaccgaa 1300

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 gaaagtga aaatgaaaagc tcaacatggc caacacgctt atcaatgtta 1450
 tcgtgcctct agcaaaaagg gtggacaagt tccggcagtt catgcagaat 1500
 ttcagggaga tgtgcattga gcaggatggg agagtccatc tcactgttgt 1550
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 cttccaaagc tgccaacttc aggaacttta ccttcattca gctgaatgga 1650
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 gattttggag agactttgga tttgggatga cgtgtcagta tcggtcagac 1950
 ttcatcaata taggtgggtt tgatctggac atcaaaggct ggggcggaga 2000
 ggatgtgcac ctttatcgca agtatctcca cagcaacctc atagtgtgac 2050
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 gaacgaggca tcccacggcc agctgggcat gctgggtgtc aggcacgaga 2200
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 tgaactccca gagaaggatt gtgggagaca ctttttctt ctttttgcaa 2300
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 gggaaaggaat ggtttgtact aatacagacg tacagatact ttctctgaag 3150
 agtattttcg aagaggagca actgaacact ggaggaaaag aaaatgacac 3200
 ttctctgttt acagaaaagg aaactcattc agactggtga tatcgtgatg 3250
 tacttaaaag tcagaaacca cattttctcc tcagaagtag ggaccgcttt 3300
 ctaccctgtt taaataaacc aaagtatacc gtgtgaacca aacaatctct 3350
 ttcaaaaaca ggggtgctct cctggcttct ggcttcata agaagaaatg 3400
 gagaaaaata tatatatata tatatatatt gtgaaagatc aatccatctg 3450
 ccagaatcta gtgggatgga agtttttgc acatgttatc caccacaggc 3500
 cagggtggaag taactgaatt attttttaaa ttaagcagtt ctactcaatc 3550
 accaagatgc ttctgaaaat tgcattttat taccatttca aactattttt 3600
 taaaaataaa tacagttaac atagagtgtt ttcttcattc atgtgaaaaa 3650
 tattagccag caccagatgc atgagctaatt tatctctttg agtccttgct 3700
 tctgtttgct cacagtaaac tcattgttta aaagcttcaa gaacattcaa 3750
 gctgttggtg tggttaaaaa tgcattgtat tgattgtac tggtagttta 3800
 tgaaatttaa ttaaaacaca ggccatgaat ggaaggtggt attgcacagc 3850
 taataaaaata tgatttgtgg atatgaa 3877

<210> 381
 <211> 532
 <212> PRT
 <213> Homo sapiens

<400> 381
 Met Met Met Val Arg Arg Gly Leu Leu Ala Trp Ile Ser Arg Val
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 Val Val Leu Leu Val Leu Leu Cys Cys Ala Ile Ser Val Leu Tyr
 20 25 30
 Met Leu Ala Cys Thr Pro Lys Gly Asp Glu Glu Gln Leu Ala Leu
 35 40 45
 Pro Arg Ala Asn Ser Pro Thr Gly Lys Glu Gly Tyr Gln Ala Val
 50 55 60
 Leu Gln Glu Trp Glu Glu Gln His Arg Asn Tyr Val Ser Ser Leu
 65 70 75
 Lys Arg Gln Ile Ala Gln Leu Lys Glu Glu Leu Gln Glu Arg Ser
 80 85 90

Glu	Gln	Leu	Arg	Asn	Gly	Gln	Tyr	Gln	Ala	Ser	Asp	Ala	Ala	Gly	
				95					100					105	
Leu	Gly	Leu	Asp	Arg	Ser	Pro	Pro	Glu	Lys	Thr	Gln	Ala	Asp	Leu	
				110					115					120	
Leu	Ala	Phe	Leu	His	Ser	Gln	Val	Asp	Lys	Ala	Glu	Val	Asn	Ala	
				125					130					135	
Gly	Val	Lys	Leu	Ala	Thr	Glu	Tyr	Ala	Ala	Val	Pro	Phe	Asp	Ser	
				140					145					150	
Phe	Thr	Leu	Gln	Lys	Val	Tyr	Gln	Leu	Glu	Thr	Gly	Leu	Thr	Arg	
				155					160					165	
His	Pro	Glu	Glu	Lys	Pro	Val	Arg	Lys	Asp	Lys	Arg	Asp	Glu	Leu	
				170					175					180	
Val	Glu	Ala	Ile	Glu	Ser	Ala	Leu	Glu	Thr	Leu	Asn	Asn	Pro	Ala	
				185					190					195	
Glu	Asn	Ser	Pro	Asn	His	Arg	Pro	Tyr	Thr	Ala	Ser	Asp	Phe	Ile	
				200					205					210	
Glu	Gly	Ile	Tyr	Arg	Thr	Glu	Arg	Asp	Lys	Gly	Thr	Leu	Tyr	Glu	
				215					220					225	
Leu	Thr	Phe	Lys	Gly	Asp	His	Lys	His	Glu	Phe	Lys	Arg	Leu	Ile	
				230					235					240	
Leu	Phe	Arg	Pro	Phe	Ser	Pro	Ile	Met	Lys	Val	Lys	Asn	Glu	Lys	
				245					250					255	
Leu	Asn	Met	Ala	Asn	Thr	Leu	Ile	Asn	Val	Ile	Val	Pro	Leu	Ala	
				260					265					270	
Lys	Arg	Val	Asp	Lys	Phe	Arg	Gln	Phe	Met	Gln	Asn	Phe	Arg	Glu	
				275					280					285	
Met	Cys	Ile	Glu	Gln	Asp	Gly	Arg	Val	His	Leu	Thr	Val	Val	Tyr	
				290					295					300	
Phe	Gly	Lys	Glu	Glu	Ile	Asn	Glu	Val	Lys	Gly	Ile	Leu	Glu	Asn	
				305					310					315	
Thr	Ser	Lys	Ala	Ala	Asn	Phe	Arg	Asn	Phe	Thr	Phe	Ile	Gln	Leu	
				320					325					330	
Asn	Gly	Glu	Phe	Ser	Arg	Gly	Lys	Gly	Leu	Asp	Val	Gly	Ala	Arg	
				335					340					345	
Phe	Trp	Lys	Gly	Ser	Asn	Val	Leu	Leu	Phe	Phe	Cys	Asp	Val	Asp	
				350					355					360	
Ile	Tyr	Phe	Thr	Ser	Glu	Phe	Leu	Asn	Thr	Cys	Arg	Leu	Asn	Thr	
				365					370					375	
Gln	Pro	Gly	Lys	Lys	Val	Phe	Tyr	Pro	Val	Leu	Phe	Ser	Gln	Tyr	
				380					385					390	
Asn	Pro	Gly	Ile	Ile	Tyr	Gly	His	His	Asp	Ala	Val	Pro	Pro	Leu	
				395					400					405	

Glu	Gln	Gln	Leu	Val	Ile	Lys	Lys	Glu	Thr	Gly	Phe	Trp	Arg	Asp	
				410					415					420	
Phe	Gly	Phe	Gly	Met	Thr	Cys	Gln	Tyr	Arg	Ser	Asp	Phe	Ile	Asn	
				425					430					435	
Ile	Gly	Gly	Phe	Asp	Leu	Asp	Ile	Lys	Gly	Trp	Gly	Gly	Glu	Asp	
				440					445					450	
Val	His	Leu	Tyr	Arg	Lys	Tyr	Leu	His	Ser	Asn	Leu	Ile	Val	Val	
				455					460					465	
Arg	Thr	Pro	Val	Arg	Gly	Leu	Phe	His	Leu	Trp	His	Glu	Lys	Arg	
				470					475					480	
Cys	Met	Asp	Glu	Leu	Thr	Pro	Glu	Gln	Tyr	Lys	Met	Cys	Met	Gln	
				485					490					495	
Ser	Lys	Ala	Met	Asn	Glu	Ala	Ser	His	Gly	Gln	Leu	Gly	Met	Leu	
				500					505					510	
Val	Phe	Arg	His	Glu	Ile	Glu	Ala	His	Leu	Arg	Lys	Gln	Lys	Gln	
				515					520					525	
Lys	Thr	Ser	Ser	Lys	Lys	Thr									
				530											

<210> 382

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 382

ctcggggaaa gggacttgat gttgg 25

<210> 383

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 383

gcgaagggtga gcctctatct cgtgcc 26

<210> 384

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 384

cagcctacac gtattgagg 19

<210> 385

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 385

cagtcagtagc aatcctggca taatatacgg ccaccatgat gcagtcacc 48

<210> 386

<211> 1346

<212> DNA

<213> Homo sapiens

<400> 386

gaaagaatgt tgtggctgct cttttttctg gtgactgcc a ttcattgtga 50
actctgtcaa ccagggtcag aaaatgcttt taaagtgaga cttagtata 100
gaacagctct gggagataaa gcatatgcct gggataccaa tgaagaatac 150
ctcttcaaa cgatggtagc tttctccatg agaaaagtgc ccaacagaga 200
agcaacagaa atttcccatg tcctactttg caatgtaacc cagagggtat 250
cattctggtt tgtgggtaca gaccttcaa aaaatcacac ccttctgct 300
gttgagggtc aatcagccat aagaatgaac aagaaccgga tcaacaatgc 350
cttctttcta aatgacaaa ctctggaatt tttaaaaatc ccttccacac 400
ttgcaccacc catggacca tctgtgccca tctggattat tatatttgg 450
gtgatatatt gcatcatcat agttgcaatt gcaactactga ttttatcagg 500
gatctggcaa cgtagaagaa agaacaaaga accatctgaa gtggatgacg 550
ctgaagataa gtgtgaaaac atgatcaca ttgaaaatgg catcccctct 600
gatcccctgg acatgaagg gggcatatta atgatgcct catgacagag 650
gatgagaggg tccccctct ctgaagggt gttgttctgc ttctcaaga 700
aattaaacat ttgtttctgt gtgactgctg agcatcctga aatacaaga 750
gcagatcata tttttgttt caccattctt cttttgtaat aaattttgaa 800
tgtgcttgaa agtgaaaagc aatcaattat accaccaaac accaactgaa 850
tcataagcta ttcacgactc aaaatattct aaaatatttt tctgacagta 900
tagtgtataa atgtggctcat gtggtatttg tagttattga ttttaagcatt 950
tttagaaata agatcaggca tatgtatata ttttcacact tcaaagacct 1000
aagggaaaaa aaattttcca gtggagaata catataatat ggtgtagaaa 1050
tcattgaaaa tggatccttt ttgacgatca cttatatcac tctgtatatg 1100
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tgggaattact catatacagg gtggaatttt atcctgttat cacaccaaca 1200
gttgattata tttttctga atatcagccc ctaataggac aattctattt 1250

gttgaccatt tctacaattt gtaaaagtcc aatctgtgct aacttaataa 1300
 agtaataatc atctcttttt aaaaaaaaaa aaaaaaaaaa aaaaaa 1346

<210> 387
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 387
 Met Leu Trp Leu Leu Phe Phe Leu Val Thr Ala Ile His Ala Glu
 1 5 10 15
 Leu Cys Gln Pro Gly Ala Glu Asn Ala Phe Lys Val Arg Leu Ser
 20 25 30
 Ile Arg Thr Ala Leu Gly Asp Lys Ala Tyr Ala Trp Asp Thr Asn
 35 40 45
 Glu Glu Tyr Leu Phe Lys Ala Met Val Ala Phe Ser Met Arg Lys
 50 55 60
 Val Pro Asn Arg Glu Ala Thr Glu Ile Ser His Val Leu Leu Cys
 65 70 75
 Asn Val Thr Gln Arg Val Ser Phe Trp Phe Val Val Thr Asp Pro
 80 85 90
 Ser Lys Asn His Thr Leu Pro Ala Val Glu Val Gln Ser Ala Ile
 95 100 105
 Arg Met Asn Lys Asn Arg Ile Asn Asn Ala Phe Phe Leu Asn Asp
 110 115 120
 Gln Thr Leu Glu Phe Leu Lys Ile Pro Ser Thr Leu Ala Pro Pro
 125 130 135
 Met Asp Pro Ser Val Pro Ile Trp Ile Ile Ile Phe Gly Val Ile
 140 145 150
 Phe Cys Ile Ile Ile Val Ala Ile Ala Leu Leu Ile Leu Ser Gly
 155 160 165
 Ile Trp Gln Arg Arg Arg Lys Asn Lys Glu Pro Ser Glu Val Asp
 170 175 180
 Asp Ala Glu Asp Lys Cys Glu Asn Met Ile Thr Ile Glu Asn Gly
 185 190 195
 Ile Pro Ser Asp Pro Leu Asp Met Lys Gly Gly Ile Leu Met Met
 200 205 210
 Pro Ser

<210> 388
 <211> 1371
 <212> DNA
 <213> Homo sapiens

<400> 388
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ggccttggca ggggtgtgga gcctcgggc tgcctcgtcc ggtctctggg 100
 gccaaaggctg ggtttccctc atgtatggca agagctctac tcgtgcggtg 150
 cttctctctcc ttggcataca gctcacagct ctttggccta tagcagctgt 200
 ggaaatttat acctcccggg tgctggaggc tggttaatggg acagatgctc 250
 ggttaaaatg cactttctcc agctttgccc ctgtgggtga tgctctaaca 300
 gtgacctgga attttcgtcc tctagacggg ggacctgagc agtttgtatt 350
 ctactaccac atagatccct tccaacccat gagtgggagg ttaaggacc 400
 ggggtgtctg ggatgggaat cctgagcggg acgatgcctc catcctcttc 450
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 cccacctgat gttgatgggg tgatagggga gatccggctc agcgtcgtgc 550
 acactgtacg cttctctgag atccacttcc tggctctggc cattggctct 600
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 ttaccggaaa aagcgatggg ccgaaagagc tcaaaaagtg gtggagataa 700
 aatcaaaaga agaggaaagg ctcaaccaag agaaaaaggt cctgtttat 750
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 aaaggggata aaagccaatt tgtctgttac atttccttc acgtatttct 1150
 ttttagcgca cttctgctac taaagttaat gtgtttactc tcttcccttc 1200
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 acagtaaacc ctaaattcaa actgttaaat gacattttta ttttatgtc 1300
 tctccttaac tatgagacac atctgtttt actgaatttc tttcaatt 1350
 ccagtgata gattttgtc g 1371

<210> 389

<211> 215

<212> PRT

<213> Homo sapiens

<400> 389

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly
 1 5 10 15

Ile	Gln	Leu	Thr	Ala	Leu	Trp	Pro	Ile	Ala	Ala	Val	Glu	Ile	Tyr	20	25	30
Thr	Ser	Arg	Val	Leu	Glu	Ala	Val	Asn	Gly	Thr	Asp	Ala	Arg	Leu	35	40	45
Lys	Cys	Thr	Phe	Ser	Ser	Phe	Ala	Pro	Val	Gly	Asp	Ala	Leu	Thr	50	55	60
Val	Thr	Trp	Asn	Phe	Arg	Pro	Leu	Asp	Gly	Gly	Pro	Glu	Gln	Phe	65	70	75
Val	Phe	Tyr	Tyr	His	Ile	Asp	Pro	Phe	Gln	Pro	Met	Ser	Gly	Arg	80	85	90
Phe	Lys	Asp	Arg	Val	Ser	Trp	Asp	Gly	Asn	Pro	Glu	Arg	Tyr	Asp	95	100	105
Ala	Ser	Ile	Leu	Leu	Trp	Lys	Leu	Gln	Phe	Asp	Asp	Asn	Gly	Thr	110	115	120
Tyr	Thr	Cys	Gln	Val	Lys	Asn	Pro	Pro	Asp	Val	Asp	Gly	Val	Ile	125	130	135
Gly	Glu	Ile	Arg	Leu	Ser	Val	Val	His	Thr	Val	Arg	Phe	Ser	Glu	140	145	150
Ile	His	Phe	Leu	Ala	Leu	Ala	Ile	Gly	Ser	Ala	Cys	Ala	Leu	Met	155	160	165
Ile	Ile	Ile	Val	Ile	Val	Val	Val	Leu	Phe	Gln	His	Tyr	Arg	Lys	170	175	180
Lys	Arg	Trp	Ala	Glu	Arg	Ala	His	Lys	Val	Val	Glu	Ile	Lys	Ser	185	190	195
Lys	Glu	Glu	Glu	Arg	Leu	Asn	Gln	Glu	Lys	Lys	Val	Ser	Val	Tyr	200	205	210
Leu	Glu	Asp	Thr	Asp											215		

<210> 390

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 390

ccgaggccat ctagaggcca gaggc 24

<210> 391

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 391

acaggcagag ccaatggcca gaggc 24

<210> 392
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 392
 gagaggactg cgggagtttg ggacctttgt gcagacgtgc tcatg 45

<210> 393
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 393
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 agcagtcctg gtactcttgg gagtttccat ctttctggtc tctgccaga 100
 atccgacaac agctgctcca gctgacacgt atccagctac tggtcctgct 150
 gatgatgaag cccctgatgc tgaaaccact gctgctgcaa ccactgcgac 200
 cactgctgct cctaccactg caaccacgc tgcttctacc actgctcgta 250
 aagacattcc agttttaccc aaatgggttg gggatctccc gaatggtaga 300
 gtgtgtccct gagatggaat cagcttgagt cttctgcaat tggtcacaac 350
 tattcatgct tctgtgatt tcatccaact acttaccttg cctacgatat 400
 cccctttatc tctaatacgt ttattttctt tcaataaaaa aataactatg 450
 agcaacataa aaaaaaaaaa a 471

<210> 394
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 394
 Met Lys Phe Leu Ala Val Leu Val Leu Leu Gly Val Ser Ile Phe
 1 5 10 15
 Leu Val Ser Ala Gln Asn Pro Thr Thr Ala Ala Pro Ala Asp Thr
 20 25 30
 Tyr Pro Ala Thr Gly Pro Ala Asp Asp Glu Ala Pro Asp Ala Glu
 35 40 45
 Thr Thr Ala Ala Ala Thr Thr Ala Thr Thr Ala Ala Pro Thr Thr
 50 55 60
 Ala Thr Thr Ala Ala Ser Thr Thr Ala Arg Lys Asp Ile Pro Val
 65 70 75
 Leu Pro Lys Trp Val Gly Asp Leu Pro Asn Gly Arg Val Cys Pro
 80 85 90

<210> 395
 <211> 25

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 395
 gctccctgat cttcatgtca ccacc 25

 <210> 396
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 396
 caggacaca ctctaccatt cgggag 26

 <210> 397
 <211> 42
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 397
 ccatttttct ggtctctgcc cagaatccga caacagctgc tc 42

 <210> 398
 <211> 907
 <212> DNA
 <213> Homo sapiens

 <400> 398
 ggactctgaa ggtcccaagc agctgctgag gccccaagg aagtgggttc 50
 aaccttgga ccttaggggt ctggatttgc tggtaacaa gataacctga 100
 gggcaggacc ccatagggga atgctacctc ctgcccttc acctgccctg 150
 gtgttcacg tggcctggc cctccttgcc gagagagtgt cctgggtcag 200
 ggacgcagag gacgctcaca gactccagcc cttgtttacc gagaggacac 250
 ttggcaaggt ccagcgatg tccggagtcc acacacagac tggcggcagg 300
 gcaggagggg gacagttctg ttgtgcttgg ttggacagta agagggtctt 350
 ggccagtgca ggggtggggg cggaactc cataaagaac cagagggtct 400
 gggcccccgc cacagagtca tetgccagc tcctctgtg ctggccagt 450
 ggagtggcac gaggtggggc tttgtgccag taaaaccaca ggctggattt 500
 gcctgogggc catggtccct gtctagggca gcaattctca acctcttgc 550
 tctcaggacc ccaaagagct ttcattgtat ctattgattt ttaccacatt 600
 agcaattaaa actgagaaat gggccgggca cggtggtcga cgctgtaat 650

cccagcactt tgggaggccg aggcgggtgg atcacctgag atcaggagtt 700
 caagaccagc ctggccaaca tggtgaaacc ttgtotacta aaaatacaaa 750
 aaattagcca ggcacagtgg tgtgcaactg tagtcccagt tactcgggag 800
 gctgaggcag gaaaatcgct tgaaccagg aggcggacgt tgcggtgagc 850
 cgagatcgcg ccgctgattc cagcctgggc gacaagagtg agactccatc 900
 tcacaca 907

<210> 399
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 399
 Met Leu Pro Pro Ala Leu Pro Pro Ala Leu Val Phe Thr Val Ala
 1 5 10 15
 Trp Ser Leu Leu Ala Glu Arg Val Ser Trp Val Arg Asp Ala Glu
 20 25 30
 Asp Ala His Arg Leu Gln Pro Phe Val Thr Glu Arg Thr Leu Gly
 35 40 45
 Lys Val Gln Arg Trp Ser Gly Val His Thr Gln Thr Gly Gly Arg
 50 55 60
 Ala Gly Gly Gly Gln Phe Cys Cys Ala Trp Leu Asp Ser Lys Arg
 65 70 75
 Val Leu Ala Ser Pro Gly Trp Gly Ala Ala Asn Ser Ile Lys Asn
 80 85 90
 Gln Arg Val Trp Ala Pro Ala Thr Glu Ser Ser Ala Gln Leu Leu
 95 100 105
 Cys Cys Trp Pro Val Gly Val Ala Arg Gly Gly Ala Leu Cys Gln
 110 115 120

<210> 400
 <211> 893
 <212> DNA
 <213> Homo sapiens

<400> 400
 gtcatgccag tgccgtctct gtgcctgctc tgggccctgg caatggtgac 50
 ccggcctgcc tcagcgccc ccatggcgcg ccagaaactg gcacagcatg 100
 aggagctgac cctgctcttc catgggaccc tgcagctggg ccaggccctc 150
 aacggtgtgt acaggaccac ggagggacg ctgacaaagg ccagggaacag 200
 cctgggtctc tatggccgca caatagaact cctggggcag gaggtcagcc 250
 ggggcccggga tgcagcccag gaacttcggg caagcctgtt ggagactcag 300
 atggaggagg atattctgca gctgcaggca gaggccacag ctgaggtgct 350
 gggggagggtg gccaggcac agaaggtgct acgggacagc gtgcagcggc 400

tagaagtcca gctgaggagc gcttggctgg gccctgccta ccgagaattt 450
 gaggtctttaa aggtctcacgc tgacaagcag agccacatcc tatgggcccct 500
 cacagggcac gtgcagcggc agaggcggga gatggtggca cagcagcatc 550
 ggctgcgaca gatccaggag agactccaca cagcggcgct cccagcctga 600
 atctgcctgg atggaactga ggaccaatca tgctgcaagg aacacttcca 650
 cgccccgtga ggccccctgt caggaggagg ctgcctgttc actgggatca 700
 gccagggcgc cgggccccac ttctgagcac agagcagaga cagacgcagg 750
 cggggacaaa ggcagaggat gtacccccat tggggagggg tggaggaagg 800
 acatgtatcc ttctatgctt acacaccctt cattaaagca gagtctgtgc 850
 atttcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 893

<210> 401
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 401
 Met Pro Val Pro Ala Leu Cys Leu Leu Trp Ala Leu Ala Met Val
 1 5 10 15
 Thr Arg Pro Ala Ser Ala Ala Pro Met Gly Gly Pro Glu Leu Ala
 20 25 30
 Gln His Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu
 35 40 45
 Gly Gln Ala Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu
 50 55 60
 Thr Lys Ala Arg Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu
 65 70 75
 Leu Leu Gly Gln Glu Val Ser Arg Gly Arg Asp Ala Ala Gln Glu
 80 85 90
 Leu Arg Ala Ser Leu Leu Glu Thr Gln Met Glu Glu Asp Ile Leu
 95 100 105
 Gln Leu Gln Ala Glu Ala Thr Ala Glu Val Leu Gly Glu Val Ala
 110 115 120
 Gln Ala Gln Lys Val Leu Arg Asp Ser Val Gln Arg Leu Glu Val
 125 130 135
 Gln Leu Arg Ser Ala Trp Leu Gly Pro Ala Tyr Arg Glu Phe Glu
 140 145 150
 Val Leu Lys Ala His Ala Asp Lys Gln Ser His Ile Leu Trp Ala
 155 160 165
 Leu Thr Gly His Val Gln Arg Gln Arg Arg Glu Met Val Ala Gln
 170 175 180
 Gln His Arg Leu Arg Gln Ile Gln Glu Arg Leu His Thr Ala Ala

Leu Pro Ala

<210> 402
 <211> 1915
 <212> DNA
 <213> Homo sapiens

<400> 402
 ggcaacatgg ctacagcaggc ttgccccaga gccatggcaa agaatggact 50
 tgaatttgc atcctggtga tcaccttact cctggaccag accaccagcc 100
 acacatccag attaaaaacc aggaagcaca gcaaacgtcg agtgagagac 150
 aaggatggag atctgaagac tcaaatgaa aagctctgga cagaagtaa 200
 tgcttgaag gaaattcaag cctgcagac agtctgtctc cgaggcacta 250
 aagttcaca gaaatgctac ctgtctcag aaggtttgaa gcatttccat 300
 gaggccaatg aagactgcat ttccaaagga ggaatcctgg ttatccccag 350
 gaactccgac gaaatcaacg cctccaaga ctatggtaaa aggagcctgc 400
 caggtgtcaa tgacttttgg ctgggcatca atgacatggt cacggaaggc 450
 aagtttgtg acgtcaacgg aatcgctatc tccttctca actgggaccg 500
 tgcacagcct aacggtggca agcgagaaaa ctgtgtcctg ttctcccaat 550
 cagctcaggg caagtggagt gatgaggcct gtgcagcag caagagatac 600
 atatgagagt tcaccatccc taaataggtc ttcttccaat gtgtctcca 650
 agcaagattc atcataactt ataggttcat gatctctaag atcaagtaaa 700
 aatcataatt ttactattt aaaaaattgc aacacaagat caatgtccat 750
 agcaatatga tagcatcagc caattttgct aacacatttc tttgggattt 800
 tggccttctc ggggtatagg ggatcagaaa tattgatcca tgtgcacgca 850
 gataaaatgg cttctgctaa acagactaaa atctttctct ctagtcttcc 900
 tcactgtac aaaccagtt tgttttcaaa aaatcacagt agcaatgcaa 950
 ctcatcactc tagaaaagca agcttaggct acctgaaaga ttttccttg 1000
 gaagtttagc gtatgtttga ctaacaaaaa ttccctacat cagagactct 1050
 aggtgtcata taatcaaaa acttttcagc ctgtgtctca ttctgtccca 1100
 tgcgtgcaat aataccttgt cagccatta ccttatttt gaattgctcc 1150
 atctcctggt gggacttgta tctgtctgc catatcagaa cacaaacccc 1200
 tgaagaggtt ctgatttgat ttttttttt tcttcatgcc taccctttt 1250
 ttggaagttt ccagccgcaa ttgaaatga atgacaagg tgtatatattg 1300

atcaattttc attcccacca ttgcattaca acctctaact taaatgggta 1350
 accctaaggc atatcaaaga agcagattgc atgataaacg gaaatagaaa 1400
 aaaaagaacct acattttatt tgcttttagca tccttactct caccttttat 1450
 gagattgaga gtggacttac atttcctttt ttacattttc gtatatttat 1500
 ttttttttag catcattata tgtttaagtc tattatgggc aaccaatctt 1550
 tgggaagctga aaactgaatt taaagaatgc tatcttgga aattgcatac 1600
 gtctgtgcaa ttttttattc tgcctagtgc tattctgctt gtttaactag 1650
 attgtacaaa ataacttcat tgcttaatat caaattacaa agtttagact 1700
 tggaggggaaa tgggcttttt agaagcaaac aattttaaat atattttgtt 1750
 cttcaaaataa atagtgttta aacattgaat gtgttttgtg aacaatatcc 1800
 cactttgcaa actttaacta cacatgcttg gaattaagtt ttagctgttt 1850
 tcattgotca ataataaagc ctgaattctg atcaataaaa aaaaaaaaaa 1900
 aaaaaaaaaa aaaaa 1915

<210> 403
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 403
 Met Ala Gln Gln Ala Cys Pro Arg Ala Met Ala Lys Asn Gly Leu
 1 5 10 15
 Val Ile Cys Ile Leu Val Ile Thr Leu Leu Asp Gln Thr Thr
 20 25 30
 Ser His Thr Ser Arg Leu Lys Ala Arg Lys His Ser Lys Arg Arg
 35 40 45
 Val Arg Asp Lys Asp Gly Asp Leu Lys Thr Gln Ile Glu Lys Leu
 50 55 60
 Trp Thr Glu Val Asn Ala Leu Lys Glu Ile Gln Ala Leu Gln Thr
 65 70 75
 Val Cys Leu Arg Gly Thr Lys Val His Lys Lys Cys Tyr Leu Ala
 80 85 90
 Ser Glu Gly Leu Lys His Phe His Glu Ala Asn Glu Asp Cys Ile
 95 100 105
 Ser Lys Gly Gly Ile Leu Val Ile Pro Arg Asn Ser Asp Glu Ile
 110 115 120
 Asn Ala Leu Gln Asp Tyr Gly Lys Arg Ser Leu Pro Gly Val Asn
 125 130 135
 Asp Phe Trp Leu Gly Ile Asn Asp Met Val Thr Glu Gly Lys Phe
 140 145 150
 Val Asp Val Asn Gly Ile Ala Ile Ser Phe Leu Asn Trp Asp Arg

	155		160		165
Ala Gln Pro Asn Gly Gly Lys Arg Glu Asn Cys Val Leu Phe Ser					
	170		175		180
Gln Ser Ala Gln Gly Lys Trp Ser Asp Glu Ala Cys Arg Ser Ser					
	185		190		195
Lys Arg Tyr Ile Cys Glu Phe Thr Ile Pro Lys					
	200		205		

<210> 404
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 404
 cctgggtatc cccaggaact cgcac 25

<210> 405
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 405
 ctcttgctgc tgcgacaggc ctc 23

<210> 406
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 406
 cgccctccaa gactatggta aaaggagcct gccaggtgtc aatgac 46

<210> 407
 <211> 570
 <212> DNA
 <213> Homo sapiens

<400> 407
 gcgaggaccg ggtataagaa gcctcgtggc ctgtcccggg cagccgcagg 50
 ttccccgcgc gccccgagcc cccgcgccat gaagctcgcc gccctcctgg 100
 ggctctgcgt ggccctgtcc tgcagctccg ctgctgcttt cttagtgggc 150
 tcggccaagc ctgtggccca gcctgtcgtc gcgctggagt cggcggcgga 200
 ggcggggggc gggaccctgg ccaacccctc cggcaccctc aaccgcgtga 250
 agctcctgct gagcagcctg ggcacccccg tgaaccacac catagagggc 300
 tcccagaagt gtgtggctga gctgggtccc caggccgtgg gggcogtgaa 350

ggccctgaag gccctgctgg gggccctgac agtgtttggc tgagccgaga 400
 ctggagcatc tacacctgag gacaagacgc tgcccacccg cgaggggtga 450
 aaaccccgcc gcggggagga ccgtccatcc ccttccccgc gccctctca 500
 ataaacgtgg ttaagagcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 550
 aaaaaaaaaa aaaaaaaaaa 570

<210> 408
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 408
 Met Lys Leu Ala Ala Leu Leu Gly Leu Cys Val Ala Leu Ser Cys
 1 5 10 15
 Ser Ser Ala Ala Ala Phe Leu Val Gly Ser Ala Lys Pro Val Ala
 20 25 30
 Gln Pro Val Ala Ala Leu Glu Ser Ala Ala Glu Ala Gly Ala Gly
 35 40 45
 Thr Leu Ala Asn Pro Leu Gly Thr Leu Asn Pro Leu Lys Leu Leu
 50 55 60
 Leu Ser Ser Leu Gly Ile Pro Val Asn His Leu Ile Glu Gly Ser
 65 70 75
 Gln Lys Cys Val Ala Glu Leu Gly Pro Gln Ala Val Gly Ala Val
 80 85 90
 Lys Ala Leu Lys Ala Leu Leu Gly Ala Leu Thr Val Phe Gly
 95 100

<210> 409
 <211> 2089
 <212> DNA
 <213> Homo sapiens

<400> 409
 tgaaggactt ttccaggacc caaggccaca cactggaagt ctgtcagctg 50
 aaggagggca ctcccttggcc tccgcagccg atcacatgaa ggtgtgtcca 100
 agtctctgc tctccgtcct cctggcacag gtgtggctgg tacccgctt 150
 ggccccagct cctcagtcgc cagagacccc agccctcag aaccagacca 200
 gcagggtagt gcaggctccc agggaggaag aggaagatga gcaggaggcc 250
 agcgaggaga aggccggtga ggaagagaaa gcctggctga tggccagcag 300
 gcagcagctt gccaaaggaga cttcaaacctt cggattcagc ctgtcgcgaa 350
 agatctccat gaggcacgat ggcaacatgg tcttctctcc atttggcatg 400
 tccttgcca tgacaggctt gatgtctggg gccacagggc cgactgaaac 450
 ccagatcaag agagggtccc acttgaggc cctgaagccc accaagcccc 500

<210> 410
 <211> 444
 <212> PRT
 <213> Homo sapiens

<400> 410

Met	Lys	Val	Val	Pro	Ser	Leu	Leu	Leu	Ser	Val	Leu	Leu	Ala	Gln	1	5	10	15
Val	Trp	Leu	Val	Pro	Gly	Leu	Ala	Pro	Ser	Pro	Gln	Ser	Pro	Glu	20	25	30	
Thr	Pro	Ala	Pro	Gln	Asn	Gln	Thr	Ser	Arg	Val	Val	Gln	Ala	Pro	35	40	45	
Arg	Glu	Glu	Glu	Glu	Asp	Glu	Gln	Glu	Ala	Ser	Glu	Glu	Lys	Ala	50	55	60	
Gly	Glu	Glu	Glu	Lys	Ala	Trp	Leu	Met	Ala	Ser	Arg	Gln	Gln	Leu	65	70	75	
Ala	Lys	Glu	Thr	Ser	Asn	Phe	Gly	Phe	Ser	Leu	Leu	Arg	Lys	Ile	80	85	90	
Ser	Met	Arg	His	Asp	Gly	Asn	Met	Val	Phe	Ser	Pro	Phe	Gly	Met	95	100	105	
Ser	Leu	Ala	Met	Thr	Gly	Leu	Met	Leu	Gly	Ala	Thr	Gly	Pro	Thr	110	115	120	
Glu	Thr	Gln	Ile	Lys	Arg	Gly	Leu	His	Leu	Gln	Ala	Leu	Lys	Pro	125	130	135	
Thr	Lys	Pro	Gly	Leu	Leu	Pro	Ser	Leu	Phe	Lys	Gly	Leu	Arg	Glu	140	145	150	
Thr	Leu	Ser	Arg	Asn	Leu	Glu	Leu	Gly	Leu	Ser	Gln	Gly	Ser	Phe	155	160	165	
Ala	Phe	Ile	His	Lys	Asp	Phe	Asp	Val	Lys	Glu	Thr	Phe	Phe	Asn	170	175	180	
Leu	Ser	Lys	Arg	Tyr	Phe	Asp	Thr	Glu	Cys	Val	Pro	Met	Asn	Phe	185	190	195	
Arg	Asn	Ala	Ser	Gln	Ala	Lys	Arg	Leu	Met	Asn	His	Tyr	Ile	Asn	200	205	210	
Lys	Glu	Thr	Arg	Gly	Lys	Ile	Pro	Lys	Leu	Phe	Asp	Glu	Ile	Asn	215	220	225	
Pro	Glu	Thr	Lys	Leu	Ile	Leu	Val	Asp	Tyr	Ile	Leu	Phe	Lys	Gly	230	235	240	
Lys	Trp	Leu	Thr	Pro	Phe	Asp	Pro	Val	Phe	Thr	Glu	Val	Asp	Thr	245	250	255	
Phe	His	Leu	Asp	Lys	Tyr	Lys	Thr	Ile	Lys	Val	Pro	Met	Met	Tyr	260	265	270	
Gly	Ala	Gly	Lys	Phe	Ala	Ser	Thr	Phe	Asp	Lys	Asn	Phe	Arg	Cys	275	280	285	

His Val Leu Lys Leu Pro Tyr Gln Gly Asn Ala Thr Met Leu Val
 290 300
 Val Leu Met Glu Lys Met Gly Asp His Leu Ala Leu Glu Asp Tyr
 305 310 315
 Leu Thr Thr Asp Leu Val Glu Thr Trp Leu Arg Asn Met Lys Thr
 320 325 330
 Arg Asn Met Glu Val Phe Phe Pro Lys Phe Lys Leu Asp Gln Lys
 335 340 345
 Tyr Glu Met His Glu Leu Leu Arg Gln Met Gly Ile Arg Arg Ile
 350 355 360
 Phe Ser Pro Phe Ala Asp Leu Ser Glu Leu Ser Ala Thr Gly Arg
 365 370 375
 Asn Leu Gln Val Ser Arg Val Leu Arg Arg Thr Val Ile Glu Val
 380 385 390
 Asp Glu Arg Gly Thr Glu Ala Val Ala Gly Ile Leu Ser Glu Ile
 395 400 405
 Thr Ala Tyr Ser Met Pro Pro Val Ile Lys Val Asp Arg Pro Phe
 410 415 420
 His Phe Met Ile Tyr Glu Glu Thr Ser Gly Met Leu Leu Phe Leu
 425 430 435
 Gly Arg Val Val Asn Pro Thr Leu Leu
 440

<210> 411
 <211> 636
 <212> DNA
 <213> Homo sapiens

<400> 411
 ctgggatcag ccaactgcagc tccctgagca ctctctacag agacgcggac 50
 ccagacatg aggaggctcc tcctgggtcac cagcctggtg gttgtgctgc 100
 tgtggggaggc aggtgcagtc ccagcaccca aggtccctat caagatgcaa 150
 gtcaaacact gccctcaga gcaggaccca gagaaggcct ggggcgccc 200
 tgtgtgggag cctccggaga aggacgacca gctggtggtg ctgttccctg 250
 tccagaagcc gaaactcttg accaccgagg agaagccacg aggtcagggc 300
 aggggccccca tccttcagc caccaaggcc tggatggaga ccgaggacac 350
 cctggggcgt gtccctgagtc ccgagccoga ccatgacagc ctgtaccacc 400
 ctccgcctga ggaggaccag ggcgaggaga ggccccggtt gtgggtgatg 450
 ccaaatacc aggtgctcct gggaccggag gaagaccaag accacatcta 500
 ccacccccag tagggctcca ggggccatca ctgccccgcg cctgtcccaa 550
 ggccccaggct gttgggactg ggacctccc taccctgccc cagctagaca 600

aataaacccc agcaggcaaa aaaaaaaaaa aaaaaa 636

<210> 412

<211> 151

<212> PRT

<213> Homo sapiens

<400> 412

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu
1 5 10 15
Trp Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met
20 25 30
Gln Val Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp
35 40 45
Gly Ala Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val
50 55 60
Val Leu Phe Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu
65 70 75
Lys Pro Arg Gly Gln Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys
80 85 90
Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro
95 100 105
Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp
110 115 120
Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln
125 130 135
Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro
140 145 150
Gln

<210> 413

<211> 1176

<212> DNA

<213> Homo sapiens

<400> 413

agaaagctgc actctgttga gctccagggc gcagtgagg gagggagtga 50
aggagctctc tgtaccocaa gaaagtgcag ctgagactca gacaagatta 100
caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
tggagtacag atgaggctaa tacttaactc aaggaatgga cctgttcttc 200
gtctccatct ctgccocaga gctgcaagga aatcaaagac gaatgtccta 250
gtgcatttga tggcctgtat tttctccgca ctgagaatgg tggtatctac 300
cagaccttct gtgacatgac ctctgggggt ggcggctgga cctgtgtgac 350
cagcgtgcat gagaatgaca tgcgtgggaa gtgcacgggt ggcgatcgct 400

ggccagtcac gcagggcagc aaagcagact acccagaggg ggacggcaac 450
 tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500
 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
 ggcacgtgcc caataagtc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggcttctc cagacactgg gacataatct 650
 gtttggcatc taccagaaat atccagtga atatggagaa ggaagtgtt 700
 ggactgacaa cgccccgtg atccctgtg tctatgattt tggcgacgcc 750
 cagaaaacag catcttatta ctcaccctat ggccagcggg aattcactgc 800
 gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgcct 850
 tgtgtgctgg aatgaggtc accggatgta acactgagca tcaactgatt 900
 ggtggaggag gatactttcc agaggccagt cccagcagtg gtggagattt 950
 ttctggtttt gattggagtg gatatggaac tcatgttggt tacacgagca 1000
 gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050
 tgtggggagg aaccagacc tctcctccca accatgagat cccaaggatg 1100
 gagacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
 taaatcatat tgactcaaga aaaaaa 1176

<210> 414

<211> 313

<212> PRT

<213> Homo sapiens

<400> 414

Met	Asn	Gln	Leu	Ser	Phe	Leu	Leu	Phe	Leu	Ile	Ala	Thr	Thr	Arg
1				5					10					15

Gly	Trp	Ser	Thr	Asp	Glu	Ala	Asn	Thr	Tyr	Phe	Lys	Glu	Trp	Thr
				20					25					30

Cys	Ser	Ser	Ser	Pro	Ser	Leu	Pro	Arg	Ser	Cys	Lys	Glu	Ile	Lys
				35					40					45

Asp	Glu	Cys	Pro	Ser	Ala	Phe	Asp	Gly	Leu	Tyr	Phe	Leu	Arg	Thr
				50					55					60

Glu	Asn	Gly	Val	Ile	Tyr	Gln	Thr	Phe	Cys	Asp	Met	Thr	Ser	Gly
				65					70					75

Gly	Gly	Gly	Trp	Thr	Leu	Val	Ala	Ser	Val	His	Glu	Asn	Asp	Met
				80					85					90

Arg	Gly	Lys	Cys	Thr	Val	Gly	Asp	Arg	Trp	Ser	Ser	Gln	Gln	Gly
				95					100					105

Ser	Lys	Ala	Asp	Tyr	Pro	Glu	Gly	Asp	Gly	Asn	Trp	Ala	Asn	Tyr
				110					115					120

Asn	Thr	Phe	Gly	Ser	Ala	Glu	Ala	Ala	Thr	Ser	Asp	Asp	Tyr	Lys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

125	130	135
Asn Pro Gly Tyr	Tyr Asp Ile Gln Ala	Lys Asp Leu Gly Ile Trp
140	145	150
His Val Pro Asn	Lys Ser Pro Met Gln	His Trp Arg Asn Ser Ser
155	160	165
Leu Leu Arg Tyr	Arg Thr Asp Thr Gly	Phe Leu Gln Thr Leu Gly
170	175	180
His Asn Leu Phe	Gly Ile Tyr Gln Lys	Tyr Pro Val Lys Tyr Gly
185	190	195
Glu Gly Lys Cys	Trp Thr Asp Asn Gly	Pro Val Ile Pro Val Val
200	205	210
Tyr Asp Phe Gly	Asp Ala Gln Lys Thr	Ala Ser Tyr Tyr Ser Pro
215	220	225
Tyr Gly Gln Arg	Glu Phe Thr Ala Gly	Phe Val Gln Phe Arg Val
230	235	240
Phe Asn Asn Glu	Arg Ala Ala Asn Ala	Leu Cys Ala Gly Met Arg
245	250	255
Val Thr Gly Cys	Asn Thr Glu His His	Cys Ile Gly Gly Gly Gly
260	265	270
Tyr Phe Pro Glu	Ala Ser Pro Gln Gln	Cys Gly Asp Phe Ser Gly
275	280	285
Phe Asp Trp Ser	Gly Tyr Gly Thr His	Val Gly Tyr Ser Ser Ser
290	295	300
Arg Glu Ile Thr	Glu Ala Ala Val Leu	Leu Phe Tyr Arg
305	310	

<210> 415
 <211> 1281
 <212> DNA
 <213> Homo sapiens

<400> 415
 gcggagccgg cgccggctgc gcagaggagc cgctctcgcc gccgccacct 50
 cggctgggag cccaagaggc tgccgcatcc tgccctcgga acaatgggac 100
 tcggcgcgcg aggtgcttgg gccgcgctgc tcctggggac gctgcagggtg 150
 ctacgcgtgc tggggggccgc ccatgaaagc gcagccatgg cgcatctgc 200
 aaacatagag aattctgggc ttccacacaa ctccagtgtc aactcaaacg 250
 agactctcca acatgtgcct tctgaccata caaatgaaac ttcaaacagt 300
 actgtgaaac caccaacttc agttgcctca gactccagta atacaacggt 350
 caccaccatg aaacctacag cgcatcttaa tacaacaaca ccagggatgg 400
 tctcaacaaa tatgacttct accaccttaa agtctacacc caaaacaaca 450
 agtgtttcac agaacacatc tcagatatca acatccacaa tgaccgtaac 500

ccacaatagt tcagtgcacat ctgctgcttc atcagtaaca atcacaacaa 550
ctatgcattc tgaagcaaag aaaggatcaa aatttgatac tgggagcttt 600
gttgggtgta ttgtattaac gctgggagtt ttatctatc tttacattgg 650
atgcaaaatg tattactcaa gaagaggcat tcggtatcga accatagatg 700
aacatgatgc catcatttaa ggaaatccat ggaccaagga tggaatacag 750
attgatgctg ccctatcaat taattttggt ttattaatag tttaaaacaa 800
tattctcttt ttgaaaatag tataaacagc ccatgcatat aatgtacagt 850
gtattacgta aatatgtaaa gattcttcaa ggtaacaagg gtttgggttt 900
tgaataaac atctggatct tatagaccgt tcatacaatg gttttgcaa 950
gttcatagta agacaaacaa gtcctatctt ttttttttgg ctgggggtgg 1000
ggcattggtc acatatgacc agtaattgaa agacgtcatc actgaaagac 1050
agaatgccat ctgggcatac aaataagaag tttgtcacag cactcaggat 1100
tttgggtatc tttttagct cacataaaga acttcagtgc ttttcagagc 1150
tggatatac ttaattacta atgccacaca gaaattatac aatcaaaacta 1200
gatctgaagc ataatttaag aaaaacatca acattttttg tgcatttaaac 1250
tgtagtagtt ggtctagaaa caaaatactc c 1281

<210> 416

<211> 208

<212> PRT

<213> Homo sapiens

<400> 416

Met	Gly	Leu	Gly	Ala	Arg	Gly	Ala	Trp	Ala	Ala	Leu	Leu	Leu	Gly
1				5					10					15
Thr	Leu	Gln	Val	Leu	Ala	Leu	Leu	Gly	Ala	Ala	His	Glu	Ser	Ala
				20					25					30
Ala	Met	Ala	Ala	Ser	Ala	Asn	Ile	Glu	Asn	Ser	Gly	Leu	Pro	His
				35					40					45
Asn	Ser	Ser	Ala	Asn	Ser	Thr	Glu	Thr	Leu	Gln	His	Val	Pro	Ser
				50					55					60
Asp	His	Thr	Asn	Glu	Thr	Ser	Asn	Ser	Thr	Val	Lys	Pro	Pro	Thr
				65					70					75
Ser	Val	Ala	Ser	Asp	Ser	Ser	Asn	Thr	Thr	Val	Thr	Thr	Met	Lys
				80					85					90
Pro	Thr	Ala	Ala	Ser	Asn	Thr	Thr	Thr	Pro	Gly	Met	Val	Ser	Thr
				95					100					105
Asn	Met	Thr	Ser	Thr	Thr	Leu	Lys	Ser	Thr	Pro	Lys	Thr	Thr	Ser
				110					115					120
Val	Ser	Gln	Asn	Thr	Ser	Gln	Ile	Ser	Thr	Ser	Thr	Met	Thr	Val

	125		130		135
Thr His Asn Ser	Ser Val Thr Ser Ala	Ala Ser Ser Val Thr	Ile		
	140		145		150
Thr Thr Thr Met	His Ser Glu Ala Lys	Lys Gly Ser Lys Phe	Asp		
	155		160		165
Thr Gly Ser Phe	Val Gly Gly Ile Val	Leu Thr Leu Gly Val	Leu		
	170		175		180
Ser Ile Leu Tyr	Ile Gly Cys Lys Met	Tyr Tyr Ser Arg Arg	Gly		
	185		190		195
Ile Arg Tyr Arg	Thr Ile Asp Glu His	Asp Ala Ile Ile			
	200		205		

<210> 417
 <211> 1728
 <212> DNA
 <213> Homo sapiens

<400> 417
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 gccgggagcc ggtcgcgagg gctccgggct gtgggaccgc tgggccccca 100
 gcgatggcga cctgtgggg aggcccttctt cggcttggtc cctgtctcag 150
 cctgtcgtgc ctggcgcttt cgtgctgct gctggcgagc ctgtcagacg 200
 ccgccaaaga ttctgaggat gtcagatgta aatgtatctg ccttccctat 250
 aaagaaaatt ctgggcatat ttataataag aacatatctc agaaaagattg 300
 tgattgcctt catgttgttg agcccatgcc tgtgcggggg cctgatgtag 350
 aagcatactg tctacgctgt gaatgcaaat atgaagaaag aagctctgtc 400
 acaatcaagg ttaccattat aatttatctc tccatttttg gccttctact 450
 tctgtacatg gtatatctta ctctgggtga gccatactg aagaggcgcc 500
 tctttggaca tgcacagttg atacagagtg atgatgatat tggggatcac 550
 cagccttttg caaatgcaca cgatgtgcta gcccgctccc gcagtcgagc 600
 caacgtgctg aacaaggtag aatatgcaca gcagcgctgg aagcttcaag 650
 tccaagagca gcgaaagtct gtctttgacc ggcatgttgt cctcagctaa 700
 ttgggaattg aattcaaggt gactagaaag aaacaggcag acaactggaa 750
 agaactgact gggttttgct gggtttcoatt ttaatacctt gttgatttca 800
 ccaactgttg ctggaagatt caaaactgga agcaaaaact tgcctgattt 850
 ttttttcttg ttaacgtaat aatagagaca tttttaaaag cacacagctc 900
 aaagtcagcc aataagtcct ttccatattg tgacttttac taataaaaat 950
 aaatctgcct gtaaattatc ttgaagtcct ttacctggaa caagcactct 1000

ctttttcacc acatagtttt aacttgactt tcaagataat ttccagggtt 1050
 ttgtgtgttg ttgttttttg ttgtttgtt ttgggtggag aggggaggga 1100
 tgccgtggaa gtgtttaaca acttttttca agtcacttta ctaaacaaac 1150
 ttttgtaaat agaccctacc ttctattttc gagtttcatt tatattttgc 1200
 agtgtagcca gcctcatcaa agagctgact tactcatttg acttttgcac 1250
 tgactgtatt atctgggtat ctgtgtgtc tgcacttcac ggtaaacggg 1300
 atctaaaatg cctgtgggtt ttccacaaaa agcagatttt ctccatgtac 1350
 tgtgatgtot gatgcaatgc atcctagaac aaactggcca ttgctagtt 1400
 tactctaaag actaaacata gtcttggtgt gtgtggttct actcatcttc 1450
 tagtaccttt aaggacaaat cctaaggact tggcacactg caataaagaa 1500
 attttatttt aaaccaagc ctccctggat tgataatata tacacatttg 1550
 tcagcatttc cgttcgtggt gagaggcagc tgtttgagct ccaatatgtg 1600
 cagctttgaa ctagggtcgg ggtgtgggtt gcctcttctg aaaggtctaa 1650
 ccattattgg ataactggct ttttcttcc tatgtcctct ttggaatgta 1700
 acaataaaaa taatttttga aacatcaa 1728

<210> 418
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 418

Met	Ala	Thr	Leu	Trp	Gly	Gly	Leu	Leu	Arg	Leu	Gly	Ser	Leu	Leu	1	5	10	15
Ser	Leu	Ser	Cys	Leu	Ala	Leu	Ser	Val	Leu	Leu	Leu	Ala	Gln	Leu	20	25	30	
Ser	Asp	Ala	Ala	Lys	Asn	Phe	Glu	Asp	Val	Arg	Cys	Lys	Cys	Ile	35	40	45	
Cys	Pro	Pro	Tyr	Lys	Glu	Asn	Ser	Gly	His	Ile	Tyr	Asn	Lys	Asn	50	55	60	
Ile	Ser	Gln	Lys	Asp	Cys	Asp	Cys	Leu	His	Val	Val	Glu	Pro	Met	65	70	75	
Pro	Val	Arg	Gly	Pro	Asp	Val	Glu	Ala	Tyr	Cys	Leu	Arg	Cys	Glu	80	85	90	
Cys	Lys	Tyr	Glu	Glu	Arg	Ser	Ser	Val	Thr	Ile	Lys	Val	Thr	Ile	95	100	105	
Ile	Ile	Tyr	Leu	Ser	Ile	Leu	Gly	Leu	Leu	Leu	Tyr	Met	Val		110	115	120	
Tyr	Leu	Thr	Leu	Val	Glu	Pro	Ile	Leu	Lys	Arg	Arg	Leu	Phe	Gly	125	130	135	

His Ala Gln Leu Ile Gln Ser Asp Asp Ile Gly Asp His Gln
 140 145 150
 Pro Phe Ala Asn Ala His Asp Val Leu Ala Arg Ser Arg Ser Arg
 155 160 165
 Ala Asn Val Leu Asn Lys Val Glu Tyr Ala Gln Gln Arg Trp Lys
 170 175 180
 Leu Gln Val Gln Glu Gln Arg Lys Ser Val Phe Asp Arg His Val
 185 190 195
 Val Leu Ser

<210> 419
 <211> 681
 <212> DNA
 <213> Homo sapiens

<400> 419
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 tcgctctggc ttctgggctt gtccctggctc tgcgtctgct gctgcccagg 100
 gccttctctgt ccgcgggaa gcggcaggag ccgcgcgcga cacctgaagg 150
 aaaattgggc cgatttccac ctatgatgca tcatcaccag gcacctcag 200
 atggccagac tctctggggt cgtttccaga ggtctcacct tgcgcaggca 250
 ttgcaaagg ccaaaggatc aggtggaggt gctggaggag gaggtatggg 300
 aagaggtctg atggggcaga ttattccaat ctacggtttt gggatttttt 350
 tatatatact gtacattcta ttaaggtaa gtagaatcat cctaatacata 400
 ttacatcaat gaaaatctaa tatggcgata aaaatcattg tctacattaa 450
 aacttcttat agttcataaa attatttcaa atccatcatc tctttaaatc 500
 ctgcctctctc ttcatgaggt acttaggata gccattattt cagtttcaca 550
 taagaatggt tactcaatgt ttaagtgttt tgccccaaaa ttcacaacta 600
 acaaggcaga actaggactt gaacatggat cttttggttc ttaatccagt 650
 gagtataca attcaatgca ctcccctgcc a 681

<210> 420
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 420
 Met Ala Tyr Ser Thr Val Gln Arg Val Ala Leu Ala Ser Gly Leu
 1 5 10 15
 Val Leu Ala Leu Ser Leu Leu Leu Pro Lys Ala Phe Leu Ser Arg
 20 25 30
 Gly Lys Arg Gln Glu Pro Pro Pro Thr Pro Glu Gly Lys Leu Gly
 35 40 45

Arg	Phe	Pro	Pro	Met	Met	His	His	His	Gln	Ala	Pro	Ser	Asp	Gly
				50					55					60
Gln	Thr	Pro	Gly	Ala	Arg	Phe	Gln	Arg	Ser	His	Leu	Ala	Glu	Ala
				65					70					75
Phe	Ala	Lys	Ala	Lys	Gly	Ser	Gly	Gly	Gly	Ala	Gly	Gly	Gly	Gly
				80					85					90
Ser	Gly	Arg	Gly	Leu	Met	Gly	Gln	Ile	Ile	Pro	Ile	Tyr	Gly	Phe
				95					100					105
Gly	Ile	Phe	Leu	Tyr	Ile	Leu	Tyr	Ile	Leu	Phe	Lys	Val	Ser	Arg
				110					115					120
Ile	Ile	Leu	Ile	Ile	Leu	His	Gln							
				125										

<210> 421
 <211> 1630
 <212> DNA
 <213> Homo sapiens

<400> 421
 cggtctgagtg gcagctgtgg ggagatttca gtgcattgcc tcccttgggt 50
 gctcttcacg ttggatttga aagttgagag cagcatgttt tgcccactga 100
 aactcatcct gctgccagtg ttactggatt attccttggg cctgaatgac 150
 ttgaatgttt ccccgctga gctaacagtc catgtgggtg attcagctct 200
 gatgggatgt gttttccaga gcacagaaga caaatgtata ttcaagatag 250
 actggactct gtcaccagga gagcacgcca aggacgaata tgtgtatata 300
 tattactcca atctcagtg gtctattggg cgcttcacaga accgcgtaca 350
 ctgtagtggg gacatcttat gcaatgatgg ctctctcctg ctccaagatg 400
 tgcaagaggc tgaccaggga acctatatct gtgaaatcgg cctcaaaggg 450
 gagagccagg tggtcaagaa ggcgggtgta ctgcatgtgc ttccagagga 500
 gccaaaagag ctcatgttcc atgtgggtgg attgattcag atgggatgtg 550
 ttttcagag cacagaagtg aaacacgtga ccaaggtaga atggatatatt 600
 tcaggacggc gcgcaaagga ggagatttga ttctgttact acccaaaact 650
 caggatgtct gtggagtact cccagagctg gggccacttc cagaatcgtg 700
 tgaacctggt gggggacatt ttccgcaatg acggttccat catgcttcaa 750
 ggagtggagg agtcagatgg aggaactac acctgcagta tccacctagg 800
 gaacctggtg ttcaagaaaa ccattgtgct gcatgtcagc ccggaagagc 850
 ctcgaaact ggtgaccccg gcagccctga ggctctggt cttgggtggt 900
 aatcagttgg tgatcattgt ggaattgtc tgtgcccaa tctctgctgt 950
 cctgtttctg atattgatcg tgaagaagac ctgtggaat aagagttcag 1000

tgaattctac agtcttggtg aagaacacga agaagactaa tccagagata 1050
 aaagaaaaac cctgccattt tgaaagatgt gaaggggaga aacacattta 1100
 ctccccaata attgtacggg aggtgatcga ggaagaagaa ccaagtgaag 1150
 aatcagaggc cacctacatg accatgcacc cagtttgccc ttctctgagg 1200
 tcagatcgga acaactcact tgaaaaaaag tcaggtgggg gaatgccaaa 1250
 aacacagcaa gccttttgag aagaatggag agtccttca tctcagcagc 1300
 ggtggagact ctctctctgt tgtgtcctgg gccactctac cagtgtattc 1350
 agactccgcg tctccagct gtctctctgt ctctattgtt ggcaataca 1400
 ctgaagatgg agaatttggg gcctggcaga gagactggac agctctggag 1450
 gaacaggcct gctgagggga ggggagcatg gacttggcct ctggagtggg 1500
 acactggccc tgggaaccag gctgagctga gtggcctcaa acccccgtt 1550
 ggatcagacc ctctgtggg cagggttctt agtggatgag ttactgggaa 1600
 gaatcagaga taaaaaccaa cccaaatcaa 1630

<210> 422
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 422
 Met Phe Cys Pro Leu Lys Leu Ile Leu Leu Pro Val Leu Leu Asp
 1 5 10 15
 Tyr Ser Leu Gly Leu Asn Asp Leu Asn Val Ser Pro Pro Glu Leu
 20 25 30
 Thr Val His Val Gly Asp Ser Ala Leu Met Gly Cys Val Phe Gln
 35 40 45
 Ser Thr Glu Asp Lys Cys Ile Phe Lys Ile Asp Trp Thr Leu Ser
 50 55 60
 Pro Gly Glu His Ala Lys Asp Glu Tyr Val Leu Tyr Tyr Tyr Ser
 65 70 75
 Asn Leu Ser Val Pro Ile Gly Arg Phe Gln Asn Arg Val His Leu
 80 85 90
 Met Gly Asp Ile Leu Cys Asn Asp Gly Ser Leu Leu Leu Gln Asp
 95 100 105
 Val Gln Glu Ala Asp Gln Gly Thr Tyr Ile Cys Glu Ile Arg Leu
 110 115 120
 Lys Gly Glu Ser Gln Val Phe Lys Lys Ala Val Val Leu His Val
 125 130 135
 Leu Pro Glu Glu Pro Lys Glu Leu Met Val His Val Gly Gly Leu
 140 145 150
 Ile Gln Met Gly Cys Val Phe Gln Ser Thr Glu Val Lys His Val

155	160	165
Thr Lys Val Glu Trp Ile Phe Ser Gly Arg Arg Ala Lys Glu Glu		
170	175	180
Ile Val Phe Arg Tyr Tyr His Lys Leu Arg Met Ser Val Glu Tyr		
185	190	195
Ser Gln Ser Trp Gly His Phe Gln Asn Arg Val Asn Leu Val Gly		
200	205	210
Asp Ile Phe Arg Asn Asp Gly Ser Ile Met Leu Gln Gly Val Arg		
215	220	225
Glu Ser Asp Gly Gly Asn Tyr Thr Cys Ser Ile His Leu Gly Asn		
230	235	240
Leu Val Phe Lys Lys Thr Ile Val Leu His Val Ser Pro Glu Glu		
245	250	255
Pro Arg Thr Leu Val Thr Pro Ala Ala Leu Arg Pro Leu Val Leu		
260	265	270
Gly Gly Asn Gln Leu Val Ile Ile Val Gly Ile Val Cys Ala Thr		
275	280	285
Ile Leu Leu Leu Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys		
290	295	300
Gly Asn Lys Ser Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr		
305	310	315
Lys Lys Thr Asn Pro Glu Ile Lys Glu Lys Pro Cys His Phe Glu		
320	325	330
Arg Cys Glu Gly Glu Lys His Ile Tyr Ser Pro Ile Ile Val Arg		
335	340	345
Glu Val Ile Glu Glu Glu Pro Ser Glu Lys Ser Glu Ala Thr		
350	355	360
Tyr Met Thr Met His Pro Val Trp Pro Ser Leu Arg Ser Asp Arg		
365	370	375
Asn Asn Ser Leu Glu Lys Lys Ser Gly Gly Gly Met Pro Lys Thr		
380	385	390
Gln Gln Ala Phe		

<210> 423

<211> 963

<212> DNA

<213> Homo sapiens

<400> 423

ctatgaagaa gcttcctgga aaacaataag caaaggaaaa caaatgtgtc 50

ccatctcaca tgggtctacc ctactaaaga caggaagatc ataaactgac 100

agatactgaa attgtaagag ttggaaacta cattttgcaa agtcattgaa 150

ctctgagctc agttgcagta ctcgggaagc catgcaggat gaagatggat 200

acatcacctt aaatattaaa actcggaac cagctctcgt ctccgttggc 250
 cctgcatcct cctcctgggtg gcgtgtgatg gctttgatc tgctgatcct 300
 gtgctgtggg atggttgtcg ggctgggtggc tctggggatt tggctctgtca 350
 tgcagcgcaa ttacctacaa gatgagaatg aaaatogcac aggaactctg 400
 caacaattag caaagcgctt ctgtcaatat gtggtaaaaac aatcagaact 450
 aaagggcact ttcaaagggtc ataaatgcag cccctgtgac acaacttgga 500
 gatattatgg agatagctgc tatgggttct tcaggcacaa cttaacatgg 550
 gaagagagta agcagtactg cactgacatg aatgctactc toctgaagat 600
 tgacaaccgg aacattgtgg agtacctcaa agccaggact catttaattc 650
 gttgggtcgg attatctcgc cagaagtcga atgaggtctg gaagtgggag 700
 gatggctcgg ttatctcaga aaatatgttt gagtttttgg aagatggaaa 750
 aggaaatatg aattgtgctt atttccataa tgggaaaaatg caccctacct 800
 tctgtgagaa caaacattat ttaatgtgtg agaggaaggc tggcatgacc 850
 aaggtggacc aactacctta atgcaaagag gtggacagga taacacagat 900
 aagggtctta ttgtacaata aaagatatgt atgaatgcat cagtagctga 950
 aaaaaaaaaa aaa 963

<210> 424
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 424
 Met Gln Asp Glu Asp Gly Tyr Ile Thr Leu Asn Ile Lys Thr Arg
 1 5 10 15
 Lys Pro Ala Leu Val Ser Val Gly Pro Ala Ser Ser Ser Trp Trp
 20 25 30
 Arg Val Met Ala Leu Ile Leu Leu Ile Leu Cys Val Gly Met Val
 35 40 45
 Val Gly Leu Val Ala Leu Gly Ile Trp Ser Val Met Gln Arg Asn
 50 55 60
 Tyr Leu Gln Asp Glu Asn Glu Asn Arg Thr Gly Thr Leu Gln Gln
 65 70 75
 Leu Ala Lys Arg Phe Cys Gln Tyr Val Val Lys Gln Ser Glu Leu
 80 85 90
 Lys Gly Thr Phe Lys Gly His Lys Cys Ser Pro Cys Asp Thr Asn
 95 100 105
 Trp Arg Tyr Tyr Gly Asp Ser Cys Tyr Gly Phe Phe Arg His Asn
 110 115 120
 Leu Thr Trp Glu Glu Ser Lys Gln Tyr Cys Thr Asp Met Asn Ala

	125		130		135
Thr Leu Leu Lys	Ile Asp Asn Arg Asn	Ile Val Glu Tyr	Ile Lys		
	140		145		150
Ala Arg Thr His	Leu Ile Arg Trp Val	Gly Leu Ser Arg	Gln Lys		
	155		160		165
Ser Asn Glu Val	Trp Lys Trp Glu Asp	Gly Ser Val Ile	Ser Glu		
	170		175		180
Asn Met Phe Glu	Phe Leu Glu Asp Gly	Lys Gly Asn Met	Asn Cys		
	185		190		195
Ala Tyr Phe His	Asn Gly Lys Met His	Pro Thr Phe Cys	Glu Asn		
	200		205		210
Lys His Tyr Leu	Met Cys Glu Arg Lys	Ala Gly Met Thr	Lys Val		
	215		220		225
Asp Gln Leu Pro					

<210> 425

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 425

tgcagccct gtagacacaaa ctgg 24

<210> 426

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 426

ctgagataac cgagccatcc tcccac 26

<210> 427

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 427

gcttcctgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 428

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<400> 428
ccaccaatgg cagcccccacc t 21

<210> 429
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 429
gactgccctc cctgcc a 17

<210> 430
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 430
caaaaaagcct ggaagtcttc aaag 24

<210> 431
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 431
cagctggagct gcaggtgcta 20

<210> 432
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 432
cagtgagcac agcaagtgtc ct 22

<210> 433
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 433
ggccacctcc ttgagttcttc agttccct 28

<210> 434
<211> 24
<212> DNA
<213> Artificial Sequence

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<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 440
 agcagcagcc atgtagaatg aa 22

 <210> 441
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 441
 aatacgaaca gtgcacgctg at 22

 <210> 442
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 442
 tccagagagc caagcacggc aga 23

 <210> 443
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 443
 tctagccagc ttggctcaa ta 22

 <210> 444
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 444
 cctggctcta gcaccaactc ata 23

 <210> 445
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 445
 tcagtggccc taaggagatg ggcct 25

<210> 446
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 446
 caggatacag tgggaatctt gaga 24

 <210> 447
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 447
 cctgaagggc ttggagctta gt 22

 <210> 448
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 448
 tctttggcca tttcccatgg ctca 24

 <210> 449
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 449
 cccatggcga ggaggaat 18

 <210> 450
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 450
 tgcgtacgtg tgcottcag 19

 <210> 451
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 451
cagcaaccca ggcagtctgt gtgt 24

<210> 452
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 452
aacgtgctac acgaccagtg tact 24

<210> 453
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 453
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<210> 454
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 454
ttgttttagtt ctccacogtg tctccacaga a 31

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<220>
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<400> 455
tgtcagaatg caacctggct t 21

<210> 456
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<220>
<223> Synthetic oligonucleotide probe

<400> 456
tgatgtgcct ggctcagaac 20

<210> 457
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<212> DNA
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<220>
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<400> 457
tgcacctaga tgtccccagc accc 24

<210> 458
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<400> 458
aagatgcgcc aggcttctta 20

<210> 459
<211> 24
<212> DNA
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<220>
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<400> 459
ctcctgtaag gtctgctcac ttat 24

<210> 460
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<212> DNA
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<220>
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<400> 460
tggctgtcag tccagtgtgc atgg 24

<210> 461
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<220>
<223> Synthetic oligonucleotide probe

<400> 461
gcatagggat agataagatc ctgctttat 29

<210> 462
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 462
caaattaaag tacccatcag gagagaa 27

<210> 463
<211> 37

<212> DNA
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 463
 aagttgctaa atatatacat tatctgcgcc aagtcca 37

 <210> 464
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 464
 gtggtgcccc caattcatga 20

 <210> 465
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 <220>
 <223> Synthetic oligonucleotide probe

 <400> 465
 gtccttggtga tgggtctgaa ttatat 26

 <210> 466
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 <223> Synthetic oligonucleotide probe

 <400> 466
 actctctgca cccacagtc accactatct c 31

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 <212> DNA
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 <220>
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 <400> 467
 ctgaggaacc agccatgtct ct 22

 <210> 468
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 <400> 468
 gaccagatgc aggtacagga tga 23

<210> 469
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 <220>
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 <400> 469
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 <210> 470
 <211> 22
 <212> DNA
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 <400> 470
 ggggtggaggc tcactgagta ga 22

 <210> 471
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 <212> DNA
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 <400> 471
 caatacaggt aatgaaactc tgcttctt 28

 <210> 472
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 <400> 472
 tcctcttaag cataggccat tttctcagtt tagaca 36

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 <400> 473
 ggtggtcttg cttggtctca c 21

 <210> 474
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<400> 474
ccgtcgttca gcaacatgac 20

<210> 475
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<220>
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<400> 475
accgcctacc gctgtgccca 20

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<400> 476
cagtaaaacc acaggctgga ttt 23

<210> 477
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<220>
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<400> 477
cctgagagca agaagttga gaat 24

<210> 478
<211> 22
<212> DNA
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<220>
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<400> 478
tagacaggga ccatggcccc ca 22

<210> 479
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 479
tgggctgtag aagagttgtt g 21

<210> 480
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<400> 480
tccacacttg gccagtttat 20

<210> 481
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<220>
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<400> 481
cccaacttct cccttttggga ccct 24

<210> 482
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<220>
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<400> 482
gtcccttcac tgtttagagc atga 24

<210> 483
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 483
actctcccc tcaacagcct cctgag 26

<210> 484
<211> 20
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<220>
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<400> 484
gtggtcaggg cagatccttt 20

<210> 485
<211> 23
<212> DNA
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<220>
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<400> 485
acagatccag gagagactcc aca 23

<210> 486
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 486
agcggcgctc ccagcctgaa t 21

<210> 487
<211> 23
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<213> Artificial Sequence

<220>
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<400> 487
catgattggt cctcagttcc atc 23

<210> 488
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<220>
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<400> 488
atagagggt cccagaagtg 20

<210> 489
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 489
cagggccttc agggccttca c 21

<210> 490
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 490
gctcagccaa acactgtca 19

<210> 491
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 491
ggggccctga cagtgtt 17

<210> 492
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 492
ctgagccgag actggagcat ctacac 26

<210> 493
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 493
gtgggcagcg tcttgct 17

<210> 494
<211> 1231
<212> DNA
<213> Homo Sapien

<400> 494
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ccgcgatccc ggcccggggc tgtggcgctg actccgaccc aggcagccag 100
cagcccgccg gggagccgga ccgcccgcgg aggagctcgg acggcatgct 150
gagcccccct ctttgctgaa gcccgagtgc ggagaagccc gggcaaacgc 200
aggctaagga gaccaaagcg gcgaagtgcg gagacagcgg acaagcagcg 250
gaggagaagg aggaggaggc gaaccagag aggggcagca aaagaagcgg 300
tggtggtggg cgtcgtggcc atggcggcgg ctatcgccag ctgcctcctc 350
cgtcagaaga ggcaagcccg cgagcgcgag aaatccaacg cctgcaagtg 400
tgtcagcagc ccagcaaaag gcaagaccag ctgcgacaaa aacaagttaa 450
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atgaggacag cacttacact ctgtttaacc tcattcctgt gggctctcga 650
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tgagggatac ttgtacacct cggaactttt cacacctgag tgcaaatcca 750
aagaatcagt gtttgaaat tattatgtga catattcctc aatgatatac 800
cgtcagcagc agtcaggccg aggggtgtat ctgggtctga acaagaaggg 850
agagatcatg aaaggcaacc atgtgaagaa gaacaagcct gcagctcatt 900

ttctgcctaa accactgaaa gtggccatgt acaaggagcc atcactgcac 950
 gatctcacgg agttctcccg atctggaagc gggaccccaa ccaagagcag 1000
 aagtgtctct ggcgtgctga acggaggcaa atccatgagc cacaatgaat 1050
 caacgtagcc agtgagggca aaagaagggc tctgtaacag aaccttacct 1100
 ccaggtgctg ttgaattctt ctagcagtc ttcacccaaa agttcaaat 1150
 tgtcagtgc atttaccaaa caaacaggca gagttcacta ttctatctgc 1200
 cattagacct tottatcadc cataactaaag c 1231

<210> 495
 <211> 245
 <212> PRT
 <213> Homo Sapien

<400> 495
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 Ala Arg Glu Arg Glu Lys Ser Asn Ala Cys Lys Cys Val Ser Ser
 20 25 30
 Pro Ser Lys Gly Lys Thr Ser Cys Asp Lys Asn Lys Leu Asn Val
 35 40 45
 Phe Ser Arg Val Lys Leu Phe Gly Ser Lys Lys Arg Arg Arg Arg
 50 55 60
 Arg Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu Tyr Ser
 65 70 75
 Arg Gln Gly Tyr His Leu Gln Leu Gln Ala Asp Gly Thr Ile Asp
 80 85 90
 Gly Thr Lys Asp Glu Asp Ser Thr Tyr Thr Leu Phe Asn Leu Ile
 95 100 105
 Pro Val Gly Leu Arg Val Val Ala Ile Gln Gly Val Gln Thr Lys
 110 115 120
 Leu Tyr Leu Ala Met Asn Ser Glu Gly Tyr Leu Tyr Thr Ser Glu
 125 130 135
 Leu Phe Thr Pro Glu Cys Lys Phe Lys Glu Ser Val Phe Glu Asn
 140 145 150
 Tyr Tyr Val Thr Tyr Ser Ser Met Ile Tyr Arg Gln Gln Gln Ser
 155 160 165
 Gly Arg Gly Trp Tyr Leu Gly Leu Asn Lys Glu Gly Glu Ile Met
 170 175 180
 Lys Gly Asn His Val Lys Lys Asn Lys Pro Ala Ala His Phe Leu
 185 190 195
 Pro Lys Pro Leu Lys Val Ala Met Tyr Lys Glu Pro Ser Leu His
 200 205 210
 Asp Leu Thr Glu Phe Ser Arg Ser Gly Ser Gly Thr Pro Thr Lys

215

220

225

Ser Arg Ser Val Ser Gly Val Leu Asn Gly Gly Lys Ser Met Ser
230 235 240

His Asn Glu Ser Thr
245

<210> 496

<211> 1471

<212> DNA

<213> Homo Sapien

<400> 496

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gagccctgtc ttactgaacc tgggcaacct ggatattctg agacatatatt 150
tggggggatt tcagtgaaaa aagtggggga tcccctccat ttagagtgtg 200
gcaaaggaaa aaacaccaag gttgggttcc ttctgacat tggcagtgcc 250
ccagtagggg tgggatgagc gaattattccc aaagctaaag tcccacaccc 300
tgtagattac aagagtggat ttggcaggag tgtgccccaa aatacagtg 350
aaagtgccct gaagatatatt aaaccacgtc ttggaaattt agtgggtctt 400
ggctttggga taggtgaagt gaggacagac actggagagg agggaaagg 450
gaogttttca ataggaggca aaactcgagg gtgggatcca ctgaggagta 500
cataggctgc tggatctggt ggagccagca ctgggccac gggtggtaac 550
tggtctgtgt ggaggggggt acgtgagggg ggggtctggg gcttatcctc 600
aggctctgtg ggtggggcag cgagtcgggg cctgagcgctc aagagcatgc 650
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cgttttggg gtgtctcctc ccggggcgct atggcggcgc tggccagtag 750
cctgatccgg cagaagcggg aggtcccgca gcccgggggc agccggccgg 800
tgtcggcgca gcggcgcgtg tgtccccgcg gcaccaagtc cctttgccag 850
aagcagctcc tcatcctgct gtccaagggt cgactgtgag gggggcgccc 900
cgcgcggccg gaccgcggcc cggagcctca gctcaaaagg atcgtaacca 950
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atccagggca cccagagga taccagctcc ttacccact tcaacctgat 1050
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acatggccat gaatgctgag ggaactgtct acagttogcc gcatttcaca 1150
gtgagtgctc gctttaagga gtgtgtcttt gagaattact acgtcctgta 1200
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gcctggacaa ggagggccag gtcatgaagg gaaaccgagt taagaagacc 1300
aaggcagctg ccactttct gcccaagctc ctggaggttg ccatgtacca 1350
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ccagccacca ccacaacctg t 1471

<210> 497
<211> 225
<212> PRT
<213> Homo Sapien

<400> 497
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1 5 10 15
Arg Glu Pro Gly Gly Ser Arg Pro Val Ser Ala Gln Arg Arg Val
20 25 30
Cys Pro Arg Gly Thr Lys Ser Leu Cys Gln Lys Gln Leu Leu Ile
35 40 45
Leu Leu Ser Lys Val Arg Leu Cys Gly Gly Arg Pro Ala Arg Pro
50 55 60
Asp Arg Gly Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu
65 70 75
Phe Cys Arg Gln Gly Phe Tyr Leu Gln Ala Asn Pro Asp Gly Ser
80 85 90
Ile Gln Gly Thr Pro Glu Asp Thr Ser Ser Phe Thr His Phe Asn
95 100 105
Leu Ile Pro Val Gly Leu Arg Val Val Thr Ile Gln Ser Ala Lys
110 115 120
Leu Gly His Tyr Met Ala Met Asn Ala Glu Gly Leu Leu Tyr Ser
125 130 135
Ser Pro His Phe Thr Ala Glu Cys Arg Phe Lys Glu Cys Val Phe
140 145 150
Glu Asn Tyr Tyr Val Leu Tyr Ala Ser Ala Leu Tyr Arg Gln Arg
155 160 165
Arg Ser Gly Arg Ala Trp Tyr Leu Gly Leu Asp Lys Glu Gly Gln
170 175 180
Val Met Lys Gly Asn Arg Val Lys Lys Thr Lys Ala Ala Ala His
185 190 195
Phe Leu Pro Lys Leu Leu Glu Val Ala Met Tyr Gln Glu Pro Ser
200 205 210
Leu His Ser Val Pro Glu Ala Ser Pro Ser Ser Pro Pro Ala Pro
215 220 225

<210> 498
<211> 744

<212> DNA
<213> Homo Sapien

<400> 498
atggcgcg ccatcgctag cggcttgatc cgccagaagc ggcaggcgcg 50
ggagcagcac tgggaccgac cgtctgccag caggagcgcg agcagcccca 100
gcaagaaccg cgggctctgc aacggcaacc tgggtgatat cttctccaaa 150
gtgcgcattc tcggcctcaa gaagcgcagg ttgcggcgcc aagatcccca 200
gctcaagggt atagtacca ggttatattg caggcaaggc tactacttgc 250
aaatgcaccc cgatggagct ctcgatggaa ccaaggatga cagcactaat 300
tctacactct tcaacctcat accagtgagg ctacgtgttg ttgccatcca 350
gggagtgaac acagggttgt atatagccat gaatggagaa ggttacctct 400
acccatcaga actttttacc cctgaatgca agtttaaga atctgttttt 450
gaaaattatt atgtaactca ctcatccatg ttgtacagac aacaggaatc 500
tggtagagcc tgggttttgg gattaaataa ggaaggcaac gctatgaaag 550
ggaacagagt aaagaaaacc aaaccagcag ctcatcttct acccaagcca 600
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taatgaatgg aggcaaacca gtaacaaga gtaagacaac atag 744

<210> 499
<211> 247
<212> PRT
<213> Homo Sapien

<400> 499
Met Ala Ala Ala Ile Ala Ser Gly Leu Ile Arg Gln Lys Arg Gln
1 5 10 15
Ala Arg Glu Gln His Trp Asp Arg Pro Ser Ala Ser Arg Arg Arg
20 25 30
Ser Ser Pro Ser Lys Asn Arg Gly Leu Cys Asn Gly Asn Leu Val
35 40 45
Asp Ile Phe Ser Lys Val Arg Ile Phe Gly Leu Lys Lys Arg Arg
50 55 60
Leu Arg Arg Gln Asp Pro Gln Leu Lys Gly Ile Val Thr Arg Leu
65 70 75
Tyr Cys Arg Gln Gly Tyr Tyr Leu Gln Met His Pro Asp Gly Ala
80 85 90
Leu Asp Gly Thr Lys Asp Asp Ser Thr Asn Ser Thr Leu Phe Asn
95 100 105
Leu Ile Pro Val Gly Leu Arg Val Val Ala Ile Gln Gly Val Lys
110 115 120

Thr Gly Leu Tyr Ile Ala Met Asn Gly Glu Gly Tyr Leu Tyr Pro
 125 130
 Ser Glu Leu Phe Thr Pro Glu Cys Lys Phe Lys Glu Ser Val Phe
 140 145 150
 Glu Asn Tyr Tyr Val Ile Tyr Ser Ser Met Leu Tyr Arg Gln Gln
 155 160 165
 Glu Ser Gly Arg Ala Trp Phe Leu Gly Leu Asn Lys Glu Gly Gln
 170 175 180
 Ala Met Lys Gly Asn Arg Val Lys Lys Thr Lys Pro Ala Ala His
 185 190 195
 Phe Leu Pro Lys Pro Leu Glu Val Ala Met Tyr Arg Glu Pro Ser
 200 205 210
 Leu His Asp Val Gly Glu Thr Val Pro Lys Pro Gly Val Thr Pro
 215 220 225
 Ser Lys Ser Thr Ser Ala Ser Ala Ile Met Asn Gly Gly Lys Pro
 230 235 240
 Val Asn Lys Ser Lys Thr Thr
 245

<210> 500

<211> 2906

<212> DNA

<213> Homo Sapien

<400> 500

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 tggaaaccgaa cgcaatggat aaactgattg tgcaagagag aaggaagaac 150
 gaagcttttt cttgtgagcc ctggatctta acacaaatgt gtatatgtgc 200
 acacagggag cattcaagaa tgaataaac cagagttaga ccgcggggg 250
 ttggtgtgtt ctgacataaa taaataatct taaagcagct gttccctctc 300
 ccaccccaaa aaaaaaggat gattggaat gaagaaccga ggattcacia 350
 agaaaaaagt atgttcattt ttctctataa aggagaaagt gagccaagga 400
 gatatttttg gaatgaaaag tttggggcct ttttagtaaa gtaagaagct 450
 ggtgtggtgg tgttttcott tctttttgaa tttccacaa gaggagagga 500
 aattaataat acatctgcaa agaaatttca gagaagaaaa gttgaccgcg 550
 gcagattgag gcattgattg ggggagagaa accagcagag cacagtgtga 600
 tttgtgccta tgttgactaa aattgacgga taattgcagt tggatttttc 650
 ttcatcaacc tccttttttt taaattttta ttcttttgg tatcaagatc 700
 atgcgttttc tcttgttctt aaccacctgg atttccatct ggatgttgct 750

gtgatcagtc tgaatacaaa ctgtttgaat tocagaagga ccaacaccag 800
 ataaattatg aatgttgaac aagatgacct tacatccaca gcagataatg 850
 ataggctcta ggtttaacag ggccctatct gacccctctg ttgtgggtgt 900
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 ccaacttgag gtatttgaac ctggccatgt gcaaccttcg ggaatccct 1450
 aacctcacac cgctcataaa actagatgag ctggatcttt ctgggaatca 1500
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 aactgtggat gatacagtc cagattcaag tgattgaacg gaatgccttt 1600
 gacaaccttc agtcactagt ggagatcaac ctggcacaca ataactaac 1650
 attactgct catgacctct tcaatccctt gcatcatcta gagcggatca 1700
 attacatca caaccttggt aactgtaact gtgacatact gtggctcagc 1750
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 attacttca atgctatgct ccggtgattg tggagcccc tcgagacctc 1900
 aatgtcactg aaggcatggc agctgagctg aaatgtcggg cctccacatc 1950
 cctgacatct gtatcttgga ttaactccaa tggaacagtc atgacacatg 2000
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 acaaatgtaa ctgtgcaaga tacaggcatg tacacatgta tggtagtaaa 2100
 ttcogttggg aatactactg cttcagccac cctgaatggt actgcagcaa 2150
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 gcacaaggct gacagagaaa accttcacca tccagtgac tgatataaac 2350

agtgggatcc caggaattga tgaggtcatg aagactacca aaatcatcat 2400
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 tctacaagat gaggaagcag caccatcggc aaaaccatca cgccccaaca 2500
 aggactgttg aaattattaa tgtggatgat gagattacgg gagacacacc 2550
 catggaaagc cacctgcccc tgcctgctat cgagcatgag cacgtaaatc 2600
 actataactc atacaaatct cccttcaacc acacaacaac agttaacaca 2650
 ataaattcaa tacacagttc agtgcataaa ccgttattga tccgaatgaa 2700
 ctctaagac aatgtacaag agactcaaat ctaaaacatt tacagagtta 2750
 caaaaaacaa acaatcaaaa aaaaagacag tttattaaaa atgacacaaa 2800
 tgactgggct aaatctactg tttcaaaaaa gtgtctttac aaaaaacaaa 2850
 aaaagaaaag aaatttattt attaaaaatt ctattgtgat ctaagcaga 2900
 caaaaa 2906

<210> 501

<211> 640

<212> PRT

<213> Homo Sapien

<400> 501

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Pro	Arg	Phe	Asn	Arg	Ala	Leu	Phe	Asp	Pro	Leu	Leu	Val	Val	Leu
				20					25					30
Leu	Ala	Leu	Gln	Leu	Leu	Val	Val	Ala	Gly	Leu	Val	Arg	Ala	Gln
				35					40					45
Thr	Cys	Pro	Ser	Val	Cys	Ser	Cys	Ser	Asn	Gln	Phe	Ser	Lys	Val
				50					55					60
Ile	Cys	Val	Arg	Lys	Asn	Leu	Arg	Glu	Val	Pro	Asp	Gly	Ile	Ser
				65					70					75
Thr	Asn	Thr	Arg	Leu	Leu	Asn	Leu	His	Glu	Asn	Gln	Ile	Gln	Ile
				80					85					90
Ile	Lys	Val	Asn	Ser	Phe	Lys	His	Leu	Arg	His	Leu	Glu	Ile	Leu
				95					100					105
Gln	Leu	Ser	Arg	Asn	His	Ile	Arg	Thr	Ile	Glu	Ile	Gly	Ala	Phe
				110					115					120
Asn	Gly	Leu	Ala	Asn	Leu	Asn	Thr	Leu	Glu	Leu	Phe	Asp	Asn	Arg
				125					130					135
Leu	Thr	Thr	Ile	Pro	Asn	Gly	Ala	Phe	Val	Tyr	Leu	Ser	Lys	Leu
				140					145					150
Lys	Glu	Leu	Trp	Leu	Arg	Asn	Asn	Pro	Ile	Glu	Ser	Ile	Pro	Ser
				155					160					165

Tyr	Ala	Phe	Asn	Arg	Ile	Pro	Ser	Leu	Arg	Arg	Leu	Asp	Leu	Gly
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Glu	Leu	Lys	Arg	Leu	Ser	Tyr	Ile	Ser	Glu	Gly	Ala	Phe	Glu	Gly
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Leu	Ser	Asn	Leu	Arg	Tyr	Leu	Asn	Leu	Ala	Met	Cys	Asn	Leu	Arg
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Glu	Ile	Pro	Asn	Leu	Thr	Pro	Leu	Ile	Lys	Leu	Asp	Glu	Leu	Asp
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Leu	Ser	Gly	Asn	His	Leu	Ser	Ala	Ile	Arg	Pro	Gly	Ser	Phe	Gln
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Gly	Leu	Met	His	Leu	Gln	Lys	Leu	Trp	Met	Ile	Gln	Ser	Gln	Ile
				245					250					255
Gln	Val	Ile	Glu	Arg	Asn	Ala	Phe	Asp	Asn	Leu	Gln	Ser	Leu	Val
				260					265					270
Glu	Ile	Asn	Leu	Ala	His	Asn	Asn	Leu	Thr	Leu	Leu	Pro	His	Asp
				275					280					285
Leu	Phe	Thr	Pro	Leu	His	His	Leu	Glu	Arg	Ile	His	Leu	His	His
				290					295					300
Asn	Pro	Trp	Asn	Cys	Asn	Cys	Asp	Ile	Leu	Trp	Leu	Ser	Trp	Trp
				305					310					315
Ile	Lys	Asp	Met	Ala	Pro	Ser	Asn	Thr	Ala	Cys	Cys	Ala	Arg	Cys
				320					325					330
Asn	Thr	Pro	Pro	Asn	Leu	Lys	Gly	Arg	Tyr	Ile	Gly	Glu	Leu	Asp
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Gln	Asn	Tyr	Phe	Thr	Cys	Tyr	Ala	Pro	Val	Ile	Val	Glu	Pro	Pro
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Ala	Asp	Leu	Asn	Val	Thr	Glu	Gly	Met	Ala	Ala	Glu	Leu	Lys	Cys
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Arg	Ala	Ser	Thr	Ser	Leu	Thr	Ser	Val	Ser	Trp	Ile	Thr	Pro	Asn
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Gly	Thr	Val	Met	Thr	His	Gly	Ala	Tyr	Lys	Val	Arg	Ile	Ala	Val
				395					400					405
Leu	Ser	Asp	Gly	Thr	Leu	Asn	Phe	Thr	Asn	Val	Thr	Val	Gln	Asp
				410					415					420
Thr	Gly	Met	Tyr	Thr	Cys	Met	Val	Ser	Asn	Ser	Val	Gly	Asn	Thr
				425					430					435
Thr	Ala	Ser	Ala	Thr	Leu	Asn	Val	Thr	Ala	Ala	Thr	Thr	Thr	Pro
				440					445					450
Phe	Ser	Tyr	Phe	Ser	Thr	Val	Thr	Val	Glu	Thr	Met	Glu	Pro	Ser
				455					460					465
Gln	Asp	Glu	Ala	Arg	Thr	Thr	Asp	Asn	Asn	Val	Gly	Pro	Thr	Pro
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<210> 503
 <211> 373
 <212> PRT
 <213> Homo Sapien

<400> 503

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Val	Thr	Leu	Pro	Cys	His	His	Gln	Leu	Gly	Leu	Pro	Glu
			35					40				45
Thr	Leu	Asp	Ile	Glu	Trp	Leu	Leu	Thr	Asp	Asn	Glu	Gly
			50					55				60
Lys	Val	Val	Ile	Thr	Tyr	Ser	Ser	Arg	His	Val	Tyr	Asn
			65					70				75
Thr	Glu	Glu	Gln	Lys	Gly	Arg	Val	Ala	Phe	Ala	Ser	Asn
			80					85				90
Ala	Gly	Asp	Ala	Ser	Leu	Gln	Ile	Glu	Pro	Leu	Lys	Pro
			95					100				105
Glu	Gly	Arg	Tyr	Thr	Cys	Lys	Val	Lys	Asn	Ser	Gly	Arg
			110					115				120
Trp	Ser	His	Val	Ile	Leu	Lys	Val	Leu	Val	Arg	Pro	Ser
			125					130				135
Lys	Cys	Glu	Leu	Glu	Gly	Glu	Leu	Thr	Glu	Gly	Ser	Asp
			140					145				150
Leu	Gln	Cys	Glu	Ser	Ser	Ser	Gly	Thr	Glu	Pro	Ile	Val
			155					160				165
Trp	Gln	Arg	Ile	Arg	Glu	Lys	Glu	Gly	Glu	Asp	Glu	Arg
			170					175				180
Pro	Lys	Ser	Arg	Ile	Asp	Tyr	Asn	His	Pro	Gly	Arg	Val
			185					190				195
Gln	Asn	Leu	Thr	Met	Ser	Tyr	Ser	Gly	Leu	Tyr	Gln	Cys
			200					205				210
Gly	Asn	Glu	Ala	Gly	Lys	Glu	Ser	Cys	Val	Val	Arg	Val
			215					220				225

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125

130

135

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140 145 150

Ser Glu Glu Ile Gly Ser Asp Phe Lys Ile Lys Cys Glu Pro Lys
155 160 165

Glu Gly Ser Leu Pro Leu Gln Tyr Glu Trp Gln Lys Leu Ser Asp
170 175 180

Ser Gln Lys Met Pro Thr Ser Trp Leu Ala Glu Met Thr Ser Ser
185 190 195

Val Ile Ser Val Lys Asn Ala Ser Ser Glu Tyr Ser Gly Thr Tyr
200 205 210

Ser Cys Thr Val Arg Asn Arg Val Gly Ser Asp Gln Cys Leu Leu
215 220 225

Arg Leu Asn Val Val Pro Pro Ser Asn Lys Ala Gly Leu Ile Ala
230 235 240

Gly Ala Ile Ile Gly Thr Leu Leu Ala Leu Ala Leu Ile Gly Leu
245 250 255

Ile Ile Phe Cys Cys Arg Lys Lys Arg Arg Glu Glu Lys Tyr Glu
260 265 270

Lys Glu Val His His Asp Ile Arg Glu Asp Val Pro Pro Pro Lys
275 280 285

Ser Arg Thr Ser Thr Ala Arg Ser Tyr Ile Gly Ser Asn His Ser
290 295 300

Ser Leu Gly Ser Met Ser Pro Ser Asn Met Glu Gly Tyr Ser Lys
305 310 315

Thr Gln Tyr Asn Gln Val Pro Ser Glu Asp Phe Glu Arg Thr Pro
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Thr Asp Gly Ile Thr Val Val
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<210> 506

<211> 1705

<212> DNA

<213> Homo Sapien

<400> 506

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<210> 507
<211> 206
<212> PRT
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<213> Homo Sapien

<400> 507

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Pro	Phe	Cys	Pro	Pro	Leu	Leu	Ala	Thr	Ala	Ser	Gln	Met	Gln	Met
				20					25					30
Val	Val	Leu	Pro	Cys	Leu	Gly	Phe	Thr	Leu	Leu	Trp	Ser	Gln	
				35					40					45
Val	Ser	Gly	Ala	Gln	Gly	Gln	Glu	Phe	His	Phe	Gly	Pro	Cys	Gln
				50					55					60
Val	Lys	Gly	Val	Val	Pro	Gln	Lys	Leu	Trp	Glu	Ala	Phe	Trp	Ala
				65					70					75
Val	Lys	Asp	Thr	Met	Gln	Ala	Gln	Asp	Asn	Ile	Thr	Ser	Ala	Arg
				80					85					90
Leu	Leu	Gln	Gln	Glu	Val	Leu	Gln	Asn	Val	Ser	Asp	Ala	Glu	Ser
				95					100					105
Cys	Tyr	Leu	Val	His	Thr	Leu	Leu	Glu	Phe	Tyr	Leu	Lys	Thr	Val
				110					115					120
Phe	Lys	Asn	His	His	Asn	Arg	Thr	Val	Glu	Val	Arg	Thr	Leu	Lys
				125					130					135
Ser	Phe	Ser	Thr	Leu	Ala	Asn	Asn	Phe	Val	Leu	Ile	Val	Ser	Gln
				140					145					150
Leu	Gln	Pro	Ser	Gln	Glu	Asn	Glu	Met	Phe	Ser	Ile	Arg	Asp	Ser
				155					160					165
Ala	His	Arg	Arg	Phe	Leu	Leu	Phe	Arg	Arg	Ala	Phe	Lys	Gln	Leu
				170					175					180
Asp	Val	Glu	Ala	Ala	Leu	Thr	Lys	Ala	Leu	Gly	Glu	Val	Asp	Ile
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<210> 508

<211> 924

<212> DNA

<213> Homo Sapien

<400> 508

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<210> 509

<211> 177

<212> PRT

<213> Homo Sapien

<400> 509

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				20					25					30
Ser	Thr	Asp	Met	His	His	Ile	Glu	Glu	Ser	Phe	Gln	Glu	Ile	Lys
				35					40					45
Arg	Ala	Ile	Gln	Ala	Lys	Asp	Thr	Phe	Pro	Asn	Val	Thr	Ile	Leu
				50					55					60
Ser	Thr	Leu	Glu	Thr	Leu	Gln	Ile	Ile	Lys	Pro	Leu	Asp	Val	Cys
				65					70					75
Cys	Val	Thr	Lys	Asn	Leu	Leu	Ala	Phe	Tyr	Val	Asp	Arg	Val	Phe
				80					85					90
Lys	Asp	His	Gln	Glu	Pro	Asn	Pro	Lys	Ile	Leu	Arg	Lys	Ile	Ser
				95					100					105
Ser	Ile	Ala	Asn	Ser	Phe	Leu	Tyr	Met	Gln	Lys	Thr	Leu	Arg	Gln
				110					115					120
Cys	Gln	Glu	Gln	Arg	Gln	Cys	His	Cys	Arg	Gln	Glu	Ala	Thr	Asn
				125					130					135
Ala	Thr	Arg	Val	Ile	His	Asp	Asn	Tyr	Asp	Gln	Leu	Glu	Val	His
				140					145					150
Ala	Ala	Ala	Ile	Lys	Ser	Leu	Gly	Glu	Leu	Asp	Val	Phe	Leu	Ala

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<210> 510
<211> 996
<212> DNA
<213> Homo Sapien

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<210> 511
<211> 251
<212> PRT
<213> Homo Sapien

<400> 511
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Val Cys Ser Met Ser Val Leu Arg Ala Tyr Pro Asn Ala Ser Pro
20 25 30

Leu	Leu	Gly	Ser	Ser	Trp	Gly	Gly	Leu	Ile	His	Leu	Tyr	Thr	Ala	35	40	45
Thr	Ala	Arg	Asn	Ser	Tyr	His	Leu	Gln	Ile	His	Lys	Asn	Gly	His	50	55	60
Val	Asp	Gly	Ala	Pro	His	Gln	Thr	Ile	Tyr	Ser	Ala	Leu	Met	Ile	65	70	75
Arg	Ser	Glu	Asp	Ala	Gly	Phe	Val	Val	Ile	Thr	Gly	Val	Met	Ser	80	85	90
Arg	Arg	Tyr	Leu	Cys	Met	Asp	Phe	Arg	Gly	Asn	Ile	Phe	Gly	Ser	95	100	105
His	Tyr	Phe	Asp	Pro	Glu	Asn	Cys	Arg	Phe	Gln	His	Gln	Thr	Leu	110	115	120
Glu	Asn	Gly	Tyr	Asp	Val	Tyr	His	Ser	Pro	Gln	Tyr	His	Phe	Leu	125	130	135
Val	Ser	Leu	Gly	Arg	Ala	Lys	Arg	Ala	Phe	Leu	Pro	Gly	Met	Asn	140	145	150
Pro	Pro	Pro	Tyr	Ser	Gln	Phe	Leu	Ser	Arg	Arg	Asn	Glu	Ile	Pro	155	160	165
Leu	Ile	His	Phe	Asn	Thr	Pro	Ile	Pro	Arg	Arg	His	Thr	Arg	Ser	170	175	180
Ala	Glu	Asp	Asp	Ser	Glu	Arg	Asp	Pro	Leu	Asn	Val	Leu	Lys	Pro	185	190	195
Arg	Ala	Arg	Met	Thr	Pro	Ala	Pro	Ala	Ser	Cys	Ser	Gln	Glu	Leu	200	205	210
Pro	Ser	Ala	Glu	Asp	Asn	Ser	Pro	Met	Ala	Ser	Asp	Pro	Leu	Gly	215	220	225
Val	Val	Arg	Gly	Gly	Arg	Val	Asn	Thr	His	Ala	Gly	Gly	Thr	Gly	230	235	240
Pro	Glu	Gly	Cys	Arg	Pro	Phe	Ala	Lys	Phe	Ile					245	250	

<210> 512

<211> 2015

<212> DNA

<213> Homo Sapien

<400> 512

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ctgctgggag gttggggtct ctgggagctc tgcaggcccc agcaccgcga 150

gagcagacac tgcgatgaca acggacgaca cagaagtgcc cgctatgact 200

ctagcaccgg gccacgccgc tctggaaact caaacgctga gcgctgagac 250

ctcttctagg gcctcaaccc cagccggccc cattccagaa gcagagacca 300

gggtgccttg gactcacctt ggcacatgtt ctgtgtttca gtaaagagag 1950
 acctgatcac ccactgtgtt gcttccatcc tgcattaaaa ttcaactcagt 2000
 gtggcccaaa aaaaa 2015

<210> 513
 <211> 482
 <212> PRT
 <213> Homo Sapien

<400> 513
 Met Gly Cys Leu Trp Gly Leu Ala Leu Pro Leu Phe Phe Phe Cys
 1 5 10 15
 Trp Glu Val Gly Val Ser Gly Ser Ser Ala Gly Pro Ser Thr Arg
 20 25 30
 Arg Ala Asp Thr Ala Met Thr Thr Asp Asp Thr Glu Val Pro Ala
 35 40 45
 Met Thr Leu Ala Pro Gly His Ala Ala Leu Glu Thr Gln Thr Leu
 50 55 60
 Ser Ala Glu Thr Ser Ser Arg Ala Ser Thr Pro Ala Gly Pro Ile
 65 70 75
 Pro Glu Ala Glu Thr Arg Gly Ala Lys Arg Ile Ser Pro Ala Arg
 80 85 90
 Glu Thr Arg Ser Phe Thr Lys Thr Ser Pro Asn Phe Met Val Leu
 95 100 105
 Ile Ala Thr Ser Val Glu Thr Ser Ala Ala Ser Gly Ser Pro Glu
 110 115 120
 Gly Ala Gly Met Thr Thr Val Gln Thr Ile Thr Gly Ser Asp Pro
 125 130 135
 Glu Glu Ala Ile Phe Asp Thr Leu Cys Thr Asp Asp Ser Ser Glu
 140 145 150
 Glu Ala Lys Thr Leu Thr Met Asp Ile Leu Thr Leu Ala His Thr
 155 160 165
 Ser Thr Glu Ala Lys Gly Leu Ser Ser Glu Ser Ser Ala Ser Ser
 170 175 180
 Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg Ala Ser Glu Ser
 185 190 195
 Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg
 200 205 210
 Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile
 215 220 225
 Thr Pro Ser Trp Ser Pro Gly Ser Asp Val Thr Leu Leu Ala Glu
 230 235 240
 Ala Leu Val Thr Val Thr Asn Ile Glu Val Ile Asn Cys Ser Ile
 245 250 255

Thr Glu Ile Glu Thr Thr Thr Ser Ser Ile Pro Gly Ala Ser Asp
 260 265
 Ile Asp Leu Ile Pro Thr Glu Gly Val Lys Ala Ser Ser Thr Ser
 275 280 285
 Asp Pro Pro Ala Leu Pro Asp Ser Thr Glu Ala Lys Pro His Ile
 290 295 300
 Thr Glu Val Thr Ala Ser Ala Glu Thr Leu Ser Thr Ala Gly Thr
 305 310 315
 Thr Glu Ser Ala Ala Pro His Ala Thr Val Gly Thr Pro Leu Pro
 320 325 330
 Thr Asn Ser Ala Thr Glu Arg Glu Val Thr Ala Pro Gly Ala Thr
 335 340 345
 Thr Leu Ser Gly Ala Leu Val Thr Val Ser Arg Asn Pro Leu Glu
 350 355 360
 Glu Thr Ser Ala Leu Ser Val Glu Thr Pro Ser Tyr Val Lys Val
 365 370 375
 Ser Gly Ala Ala Pro Val Ser Ile Glu Ala Gly Ser Ala Val Gly
 380 385 390
 Lys Thr Thr Ser Phe Ala Gly Ser Ser Ala Ser Ser Tyr Ser Pro
 395 400 405
 Ser Glu Ala Ala Leu Lys Asn Phe Thr Pro Ser Glu Thr Pro Thr
 410 415 420
 Met Asp Ile Ala Thr Lys Gly Pro Phe Pro Thr Ser Arg Asp Pro
 425 430 435
 Leu Pro Ser Val Pro Pro Thr Thr Thr Asn Ser Ser Arg Gly Thr
 440 445 450
 Asn Ser Thr Leu Ala Lys Ile Thr Thr Ser Ala Lys Thr Thr Met
 455 460 465
 Lys Pro Gln Gln Pro Arg Pro Arg Leu Pro Gly Arg Gly Arg Pro
 470 475 480
 Gln Thr

<210> 514
 <211> 2284
 <212> DNA
 <213> Homo Sapien

<400> 514
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 ggcgcgcggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
 cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
 gaccaaaact aaactgaaat ttaaaatggt ctcgggggga gaaggagct 250

tga	cttacac	ttt	gtaata	att	gtcttc	tg	aactaag	gct	gtctgt	300						
agtc	agaatt	goc	tcaaaa	gag	tctagaa	gat	gtgttca	ttg	acatcca	350						
gtc	atctctt	teta	aggga	tcag	aggcaa	tgag	cccgt	tata	cttcaa	400						
ctca	agaaga	ctgc	attaat	tct	gtgtgtt	caaca	aaaaa	catat	cagg	450						
gaca	aagcat	gta	acttgat	gat	cttcgac	act	cgaaaaa	cag	ctagaca	500						
accca	actgc	tac	ctat	ttt	tct	gtccaa	cgag	gaagcc	tg	ccattga	550					
aacc	agcaaa	agg	acttat	agt	tacagga	ta	attacaga	ttt	cca	tct	600					
ttg	accagaa	att	tgccaa	cca	agag	tta	ccaggaa	att	ctctct	650						
ac	atggccaa	ttt	toaca	gag	tactcc	ct	tagcccat	cat	cacacag	700						
att	attcaaa	gcc	acog	at	ctcatgga	gag	acacact	t	ctcaga	750						
ttt	ggatcct	cag	atcacct	gg	aaaaacta	tt	aagatgg	at	gaagca	800						
tg	ccagctc	ct	tgcttata	agg	aaaaagg	cc	attctcag	agt	tcacaa	850						
ttt	ctctga	tca	agaata	g	ctcatctgc	tg	cctgaaaa	tgt	gagtgc	900						
ct	ccagcta	cg	gtggcag	t	gtcttcca	cat	accacct	c	ggctactcc	950						
aa	gcccgc	ac	cttctta	cc	acatgc	t	cagtgaca	c	cttctggga	1000						
ctt	ccagcc	ac	agctggcc	acc	acagctc	ca	cctgtaac	c	actgtcact	1050						
tct	cagctc	cc	acgacct	cat	ttctaca	g	ttttacac	g	ggctgcggc	1100						
tac	actccaa	g	caatggcta	ca	cagcag	t	ctgactacc	ac	cttctcagg	1150						
cac	ctacgga	ct	gaaaagg	ag	cttagaaa	cc	ataccgtt	tac	agaaaatc	1200						
tcca	acttaa	ctt	tgaacac	agg	gaatgtg	tata	aacccta	ct	gcactt	1250						
tat	gtcaaa	gt	gag	tctt	ccactatgaa	t	aaaactgct	t	cctgggaag	1300						
gt	aggaggc	cag	tccaggc	agt	tcctccc	agg	gcag	gt	tcagaaaa	1350						
cag	tacggcc	tt	ccatttga	aaa	atggctt	ct	tatcgggt	c	ctgtctct	1400						
tg	gtgtcctg	tt	cctgg	tga	tag	gcctcgt	c	ctcctgggt	aga	atcctt	1450					
cg	gaatcact	c	gcaggaaa	cg	tactcaa	g	actggatta	tt	gatcaat	1500						
gg	gatctatg	t	ggacatcta	agg	atggaac	tc	ggtgtctc	t	taattcatt	1550						
tag	taaccag	a	agcccaaat	g	caatgag	tt	gtgtgact	t	gctagtctt	1600						
ag	caggaggt	t	gtatttga	ag	acaggaaa	at	gccccctt	ct	gttctct	1650						
tt	ttttttt	g	gagacagag	t	ctgtctctg	tt	gcccaggc	t	ggag	gtcag	1700					
tag	ca	cgatc	tc	cg	caac	ctc	cg	tctc	ctgg	gttca	agcga	1750				
tt	ctctgc	tc	agc	ctc	ct	aagt	at	ctgg	gatt	acag	gc	1800				
ac	ac	ctgg	ggt	gatt	ttt	gtga	ttt	ttag	tag	ag	acgg	gggt	tc	accat	gtt	1850

ggtcaggctg gtctcaaaact cctgacctag tgatccaccc tcctcgccct 1900
 cccaaagtgc tgggattaca ggcattagcc accacagctg gcccccctct 1950
 gttttatgtt tgggttttga gaaggaatga agtgggaacc aaattaggtg 2000
 attttgggta atctgtctct aaaatattag ctaaaaacaa agctctatgt 2050
 aaagtaataa agtataattg ccatataaat ttcaaaattc aactggcttt 2100
 tatgcaaaga aacagggttag gacatctagg ttccaattca ttcacattct 2150
 tggttccaga taaaatcaac tgtttatctc aatttctaag ggatttgctt 2200
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<210> 515
 <211> 431
 <212> PRT
 <213> Homo Sapien

<400> 515
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 Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu
 20 25 30
 Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu
 35 40 45
 Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln
 50 55 60
 Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly
 65 70 75
 Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala
 80 85 90
 Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala
 95 100 105
 Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile
 110 115 120
 Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu
 125 130 135
 Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val
 140 145 150
 Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp
 155 160 165
 Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp
 170 175 180
 His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu
 185 190 195

Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser
 200 205 210
 Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala
 215 220 225
 Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala
 230 235 240
 Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
 245 250 255
 Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro
 260 265 270
 Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr
 275 280 285
 Val Phe Thr Arg Ala Ala Ala Thr Leu Gln Ala Met Ala Thr Thr
 290 295 300
 Ala Val Leu Thr Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly
 305 310 315
 Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu
 320 325 330
 Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn
 335 340 345
 Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg
 350 355 360
 Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly Ser Val Pro Glu Asn
 365 370 375
 Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu
 380 385 390
 Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly
 395 400 405
 Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser Arg Leu
 410 415 420
 Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile
 425 430

<210> 516
 <211> 2749
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 1869, 1887
 <223> unknown base

<400> 516
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gcgggttcga aggggacact gtgtccctgc agtgcaccta caggggaagag 150
 ctgaggggacc accggaagta ctggtgcagg aagggtggga tctctttctc 200
 tcgctgctct ggcaccatct atgcagaaga agaagggccag gagacaatga 250
 agggcagggt gtccatccgt gacagccgcc aggagctctc gctcattgtg 300
 accctgtgga acctcaccct gcaagacgct ggggagtact ggtgtggggg 350
 cgaaaaacgg ggcgccgatg agtctttact gatctctctg ttcgtctttc 400
 caggaccctg ctgtctctcc tccccttctc ccaccttcca gctctgggt 450
 acaacacgcc tgcagcccaa ggcaaaagct cagcaaaccc agccccagg 500
 attgacttct cctgggctct acccggcagc caccacagcc aagcagggga 550
 agacaggggc tgaggccctt ccattgccag ggacttccca gtacgggcac 600
 gaaaggactt ctcagtacac aggaacctct cctcaccag cgacctctcc 650
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 gtcagccgca ggccctgatc cttctgtcag ccacctgtct ctgtggagaa 850
 aggaagctca acaggccacg gagacacaga ggaacagaaa gttctggctc 900
 tcacgcttga ctgcggagga aaaggaagcc ccttccagg cccctgaggg 950
 ggacgtgatc tcgatgcctc cctccacac atctgaggag gagctgggct 1000
 tctcgaagt ttgtctcagc tagggcagga ggccctcctg gccaggccag 1050
 cagtgaagca gtatggcttg ctggatcagc accgattccc gaaagctttc 1100
 cacctcagcc tcagagtcca gctgcccgga ctccagggct ctccccacc 1150
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 cagcagggcc agacaaggct cagtggatct ggtctgagtt tcaatctgcc 1350
 aggaactcct gggccctcatg cccagtgtcg gacctgcct tctcccaact 1400
 ccagacccca cctgtcttc cctccctggc gtctcagac ttagtccac 1450
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 caggccttgg tcaggtcagg tgcacattgc aggataagcc caggaccggc 1850
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 cctttggaaa aaatgatgaa gaaaaccttg gctccttctc tgtctggaaa 1950
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 gtaaagtagc acaactacta ttttttttct tttccatta ttattgtttt 2150
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 gaccttttta taaataaaat gttcatcagc tgcataaaaa aaaaaaaaa 2749

<210> 517

<211> 332

<212> PRT

<213> Homo Sapien

<400> 517

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Tyr	Glu	Ala	Leu	Glu	Gly	Pro	Glu	Glu	Ile	Ser	Gly	Phe	Glu	Gly
			20						25					30
Asp	Thr	Val	Ser	Leu	Gln	Cys	Thr	Tyr	Arg	Glu	Glu	Leu	Arg	Asp
			35						40					45
His	Arg	Lys	Tyr	Trp	Cys	Arg	Lys	Gly	Gly	Ile	Leu	Phe	Ser	Arg
			50					55						60
Cys	Ser	Gly	Thr	Ile	Tyr	Ala	Glu	Glu	Glu	Gly	Gln	Glu	Thr	Met
			65					70						75

Lys	Gly	Arg	Val	Ser	Ile	Arg	Asp	Ser	Arg	Gln	Glu	Leu	Ser	Leu	
				80					85					90	
Ile	Val	Thr	Leu	Trp	Asn	Leu	Thr	Leu	Gln	Asp	Ala	Gly	Glu	Tyr	
				95					100					105	
Trp	Cys	Gly	Val	Glu	Lys	Arg	Gly	Pro	Asp	Glu	Ser	Leu	Leu	Ile	
				110					115					120	
Ser	Leu	Phe	Val	Phe	Pro	Gly	Pro	Cys	Cys	Pro	Pro	Ser	Pro	Ser	
				125					130					135	
Pro	Thr	Phe	Gln	Pro	Leu	Ala	Thr	Thr	Arg	Leu	Gln	Pro	Lys	Ala	
				140					145					150	
Lys	Ala	Gln	Gln	Thr	Gln	Pro	Pro	Gly	Leu	Thr	Ser	Pro	Gly	Leu	
				155					160					165	
Tyr	Pro	Ala	Ala	Thr	Thr	Ala	Lys	Gln	Gly	Lys	Thr	Gly	Ala	Glu	
				170					175					180	
Ala	Pro	Pro	Leu	Pro	Gly	Thr	Ser	Gln	Tyr	Gly	His	Glu	Arg	Thr	
				185					190					195	
Ser	Gln	Tyr	Thr	Gly	Thr	Ser	Pro	His	Pro	Ala	Thr	Ser	Pro	Pro	
				200					205					210	
Ala	Gly	Ser	Ser	Arg	Pro	Pro	Met	Gln	Leu	Asp	Ser	Thr	Ser	Ala	
				215					220					225	
Glu	Asp	Thr	Ser	Pro	Ala	Leu	Ser	Ser	Gly	Ser	Ser	Lys	Pro	Arg	
				230					235					240	
Val	Ser	Ile	Pro	Met	Val	Arg	Ile	Leu	Ala	Pro	Val	Leu	Val	Leu	
				245					250					255	
Leu	Ser	Leu	Leu	Ser	Ala	Ala	Gly	Leu	Ile	Ala	Phe	Cys	Ser	His	
				260					265					270	
Leu	Leu	Leu	Trp	Arg	Lys	Glu	Ala	Gln	Gln	Ala	Thr	Glu	Thr	Gln	
				275					280					285	
Arg	Asn	Glu	Lys	Phe	Trp	Leu	Ser	Arg	Leu	Thr	Ala	Glu	Glu	Lys	
				290					295					300	
Glu	Ala	Pro	Ser	Gln	Ala	Pro	Glu	Gly	Asp	Val	Ile	Ser	Met	Pro	
				305					310					315	
Pro	Leu	His	Thr	Ser	Glu	Glu	Glu	Leu	Gly	Phe	Ser	Lys	Phe	Val	
				320					325					330	

Ser Ala

<210> 518

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 518

ccctgcagtg cacctacagg gaag 24

<210> 519

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 519

ctgtcttccc ctgcttggt gtgg 24

<210> 520

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 520

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<210> 521

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 521

ccagtgcaca gcaggcaacg aagc 24

<210> 522

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 522

actaggctgt atgcctgggt gggc 24

<210> 523

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 523

gtatgtacaa agcatcggca tggttgcagg agcagtgaca ggc 43

<210> 524

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 524
aatctcagca ccagccactc agagca 26

<210> 525

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 525
gttaaagagg gtgcccttcc agcga 25

<210> 526

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 526
tatcccaatg cctcccaact gctc 24

<210> 527

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 527
gatgaacttg gcgaaggggc ggca 24

<210> 528

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 528
agggaggatt atccttgacc tttgaagacc 30

<210> 529

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 529
gaagcaagtg cccagctc 18

<210> 530

<211> 18

<212> DNA

199506, 7.1.901

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